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ABSTRACT

California's ability to support postsecondary education is explored, including economic projections and the ways colleges receive and spend funds. After a historical overview of the national and California economies, short- and long-term projections are offered concerning several indices of economic productivity, especially the Gross National Product, personal income, and employment. The following sources of revenue for the State General Fund are examined: personal income taxes, sales taxes, and banks and corporations. The size and variety of U.S. postsecondary education are briefly reviewed as a background for examining California's situation. Additional considerations include: the way that growth in school size affects its economic structure and organization; revenue provided by donors, users of services (including students), taxpayers, and government; the roles of the state and federal governments in financing higher education; expenditures by public colleges and universities; the state's apportionment process for the community colleges, the University of California, and California State University; annual budgeted funds for capital outlay; financing for adult education; and the future financing of higher education. Trend and ratio analyses of statewide data on financing current operations are included. (SW)

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FINANCING POSTSECONDARY EDUCATION IN CALIFORNIA 1985-2000

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The California Postsecondary Education Commission was created by the Legislature and the Governor in 1974 as the successor to the California Coordinating Council for Higher Education in order to coordinate and plan for education in California beyond high school. As a state agency, the Commission is responsible for assuring that the State's resources for postsecondary education are utilized effectively and efficiently; for promoting diversity, innovation, and responsiveness to the needs of students and society; and for advising the Legislature and the Governor on statewide educational policy and funding.

The Commission consists of 15 members. Nine represent the general public, with three each appointed by the Speaker of the Assembly, the Senate Rules Committee, and the Governor. The other six represent the major educational systems of the State.

The Commission holds regular public meetings throughout the year at which it takes action on staff studies and adopts positions on legislative proposals affecting postsecondary education. Further information about the Commission, its meetings, its staff, and its other publications may be obtained from the Commission offices at 1020 Twelfth Street, Sacramento, California 95814; telephone (916) 445-7933.

FINANCING POSTSECONDARY EDUCATION IN CALIFORNIA: 1985-2000

The Fourth in a Series of Background Papers
for the Commission's Long-Range Planning Project,

A PROSPECTUS FOR CALIFORNIA POSTSECONDARY EDUCATION
1985-2000

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
1020 Twelfth Street, Sacramento, California 95814

Commission Report 85-17
Adopted March 4, 1985

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INTRODUCTION

This paper is the fourth in a series of background papers for the Commission's long-range planning project, "A Prospectus for California Postsecondary Education, 1985 - 2000." The first three papers in the series were devoted to reviewing the history of long-range planning since World War II, examining social and economic trends that might affect postsecondary education for the remainder of this century, and analyzing current demographic trends which will determine the size and composition of student bodies over the next 15 years. In this paper, California's ability to support postsecondary education is explored in two parts -- the first relating to projections of California's probable economic growth and the amount of that growth likely to be available to the State treasury, and the second describing the ways postsecondary institutions receive and spend their funds.

Topics discussed in the paper include:

1. Forecasts from the other background papers regarding the future environment for California postsecondary education and estimating their impact on future institutional resources;

2. The relationship between the "Gross State Product" and the availability of public financial resources;

3. The State's capacity to support postsecondary education under varying assumptions with respect to the State's economic growth, public sector resources, and postsecondary education's projected share of these resources.

4. A description of how the current finance system for postsecondary education works.

5. The total revenues and expenditures for California's institutions of postsecondary education.

6. Trend and ratio analysis for higher education.

Part One of the paper begins with an historical overview of the national and California economies. In most cases, the baseline year chosen is 1970, although a longer view (since 1960) is presented for a few categories of data. From there, both short-term and long-term projections are offered for the condition of several indices of economic productivity, especially the Gross National Product, Personal Income, and employment, since comparable figures are available for both the nation and California in most cases. Data are also presented for changes in the cost of living using both the Consumer Price Index and the Implicit Price Deflator for the Gross National Product. The projections are based on several alternative assumptions emanating from the background paper on "Social and Economic Trends: 1985 - 2000" as well as from regression analyses that provide a baseline.

Once this economic overview is established, Part One turns to the revenue picture for the State General Fund from which a large portion of support for public postsecondary education is derived. The General Fund, in turn, is derived principally from three taxing sources -- personal income taxes, sales taxes, and bank and corporation taxes -- and estimates for the growth of these revenue sources are also explored. Finally, Part One contains a discussion of a number of factors which could significantly alter the baseline projections.

Although comprehensive, Part Two of the paper pays primary, though by no means exclusive, attention to those areas of postsecondary education where the State's influence is felt the most: public and independent colleges and universities, adult schools, and vocational education. Part Two is further limited to institutional finance, with a focus on the ways postsecondary organizations receive and expend their funds.

Even with these limits, the complexity of postsecondary finance required that Part Two be divided into several chapters. The first, Chapter Three, is descriptive: It covers the scope of the postsecondary enterprise and how the current finance system "works." It briefly reviews the size and variety of postsecondary education in the United States as a background for its manifestation in California. Chapter Four then presents some concepts which help explain the system of finance in general, and the ways this system adapts to change. Chapters Five and Six then discuss postsecondary finance in California -- the universe of institutions, sources of support, expenditures of public colleges and universities, and funding of postsecondary education beyond colleges and universities. Chapter Seven adds an analytical component to this description of postsecondary finance through trend and ratio analysis of statewide data on the support of current operations. And Chapter Eight views the future financing of higher education in light of the previous analyses.

Through all these materials, the Commission seeks to provide a resource for those wishing to understand the financing of postsecondary institutions and to meet the challenges in the years 1985-2000. As with the companion papers in the "Prospectus" series, the Commission hopes that this paper will not result in a document alone, but rather will provide the framework and data to develop a capability for making decisions about the future of postsecondary education in California.

PART ONE

ECONOMIC GROWTH AND THE STATE BUDGET

ONE

UNITED STATES AND CALIFORNIA ECONOMIC CONDITIONS

Each year, the Office of the Legislative Analyst publishes an overview of the coming fiscal-year budget in which it outlines and summarizes various forecasts of economic performance over the succeeding 18-month period. The most recent of these, The 1984-85 Budget: Perspectives and Issues (1984), offered a reasonable caution to anyone attempting the kind of long-range forecasts contained in this paper:

> Obviously, it is not possible to predict economic performance beyond the next 18 months with any confidence. Indeed, no economist can say with any certainty at all what will happen to such key economic variables as interest rates, inflation, unemployment and corporate profits beyond the next several quarters (if that). This is especially true, given that federal government officials do not, themselves, know at this time what future courses monetary and fiscal policies will take, or what the effects will be in coming years of the federal government's $200 billion - $300 billion annual budget deficits (p. 17).

Further along, the Analyst punctuated that assessment further:

> Will the Department of Finance's economic forecast prove to be accurate? No one can say. Given the very poor record economic forecasters have compiled in recent years, the Legislature can have only limited confidence in the ability of the department or any other forecaster to accurately foresee the future, even over a period as short as the next 12 to 18 months (p. 57).

Given these warnings, prudence dictates the avoidance of precise forecasts over a period as long as that covered by the Prospectus project, 15 years. Nevertheless, the history of economic growth over the past dozen or so years can provide a rough guideline for what the future probably holds. Table 1 shows actual figures for the Gross National Product (GNP), in both current and constant dollars since 1970, along with personal income, employment, and the Consumer Price Index (CPI). Figure 1 compares the GNP in current and constant dollars and the CPI, with the space between the first two representing inflation.

In economic forecasting, the terms "short range" and "long range" are relative, the former usually referring to a period of about six months, and the latter extending to no more than a few years. In this paper, the short-range forecast extends to 1986 and is based on the most recent report from the UCLA Business Forecasting Project. The long-range forecast extends to the year 2000 and is based on a number of assumptions that are detailed below.

TABLE 1 Gross National Product in Current and Constant Dollars, Personal Income in Current Dollars, and the Consumer Price Index, 1970 to 1984, in Billions of Dollars

	Gross National Product			
Year	Current Dollars	Constant Dollars[1]	Personal Income[2]	Consumer Price Index[3]
1970	$ 982.4	$1,075.3	$ 801.3	116.3 (--%)
1971	1,063.4	1,107.5	859.1	121.3 (4.3)
1972	1,185.9	1,185.9	942.5	125.3 (3.3)
1973	1,326.4	1,254.3	1,052.4	133.1 (6.2)
1974	1,434.2	1,246.3	1,168.6	147.7 (11.0)
1975	1,549.2	1,231.6	1,265.0	161.2 (9.1)
1976	1,718.0	1,298.2	1,391.2	170.5 (5.8)
1977	1,918.3	1,369.7	1,540.4	181.5 (6.5)
1978	2,163.9	1,438.6	1,732.7	195.4 (7.7)
1979	2,417.8	1,479.4	1,951.2	217.4 (11.3)
1980	2,631.7	1,475.0	2,165.3	246.8 (13.5)
1981	2,957.8	1,512.2	2,429.5	272.4 (10.4)
1982	3,069.3	1,480.0	2,584.6	289.1 (6.1)
1983	3,304.8	1,534.7	2,744.2	298.4 (3.2)
1984 (est.)[4]	3,654.4	1,635.1	3,008.9	311.4 (4.4)

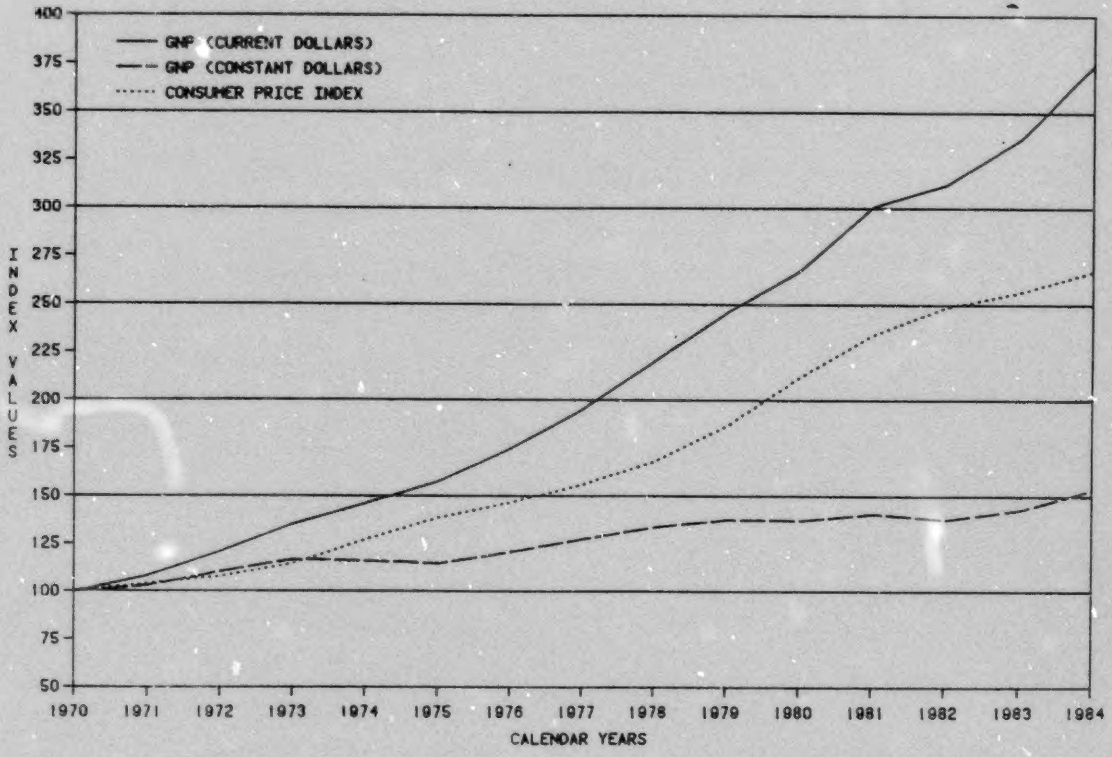
1. 1972 dollars.
2. Current dollars.
3. Indexed to 1967 as 100. Percentages in parentheses indicate annual increases.
4. Estimates are from the December 1984 UCLA Business Forecast.

Source: Council of Economic Advisers, Economic Indicators, various years.

PROJECTIONS OF ECONOMIC GROWTH

A dozen or more banks, corporations, and research organizations engage in projections of economic growth, both nationally and in California. Few of them attempt estimates beyond one year, and one of the best known of those which do is the Graduate School of Management at the University of California at Los Angeles. According to detailed comparisons published by the Legislative Analyst, UCLA appears to be at least as accurate in its predictions as any other forecaster, and it is for that reason that its projections through 1986 are offered here as representing as good a set of figures as currently exist for both the national and State scenes. Among UCLA's more interesting forecasts are that the Gross National Product will increase in real terms by 6.5 percent in 1984 (the highest one-year real increase since 1951), that personal income will increase by only a little less, that growth in the economy will continue at least through 1986, although at slower rates of 3.5 and 4.2 percent in real GNP, that interest rates will remain relatively high but stable (from a prime rate average of 10.8 in 1983 to 12.0 in 1984, 10.6 in 1985, and 11.6 in 1986), and that the federal deficit will remain stable at between $178.6 billion in 1983 and $182.5 billion in 1986.

FIGURE 1 Gross National Product in Current and Constant Dollars, and Values for the Consumer Price Index, 1970 Through 1984, Indexed to 1970



Source: Table 1.

The estimates of real growth in the GNP are not inconsistent with experience over the past 25 years with the current exception of the 6.5 percent rate for 1984. Table 2 shows the rates of real growth since 1960 along with the rates of current dollar growth and those for inflation (GNP Deflator). From this table it will be noted that the mean annual change in real GNP is 3.3 percent with a range between -2.13 in 1982 and the 6.5 anticipated for the current year. The range within one standard deviation (a measure which includes a majority of values) is 0.75 to 5.93, which includes about three-fourths of the annual changes.

In its paper on "Social and Economic Trends: 1985 - 2000," the Commission discussed several other long-range forecasts, noting that the Congressional Budget Office projected annual real growth of 4.0 percent through 1989 and that the Bureau of Labor Statistics assumed a growth rate of 3.0 percent through 1995. Given UCLA's prediction that growth will moderate to 3.5 percent in 1985 and 4.2 percent in 1986, and the fact that GNP growth has averaged 3.3 percent between 1960 and 1984, a rate of between 3.0 and 4.0 percent for the remainder of the century seems as reasonable as any. In Table 3, the effect of rates of 3.0, 3.5, and 4.0 percent are shown for real growth, along with rates of 7.0, 8.0, and 9.0 for current-dollar growth.

These latter figures include inflationary increases and assume rates of between 4 and 5 percent per year over the period. The real growth rates are all based on 1984 dollars. These data are shown graphically in Figure 2.

TABLE 2 Annual Percentage Increases in the Gross National Product in Both Current and Constant Dollars, Plus Annual Changes in the Implicit Price Deflator for the Gross National Product, 1960 to 1984

Year	Current Dollars	Constant Dollars	Inflation Rate (GNP Deflator)
1960	4.0%	2.3%	1.7%
1961	3.4	2.5	0.9
1962	7.7	5.8	1.9
1963	5.5	4.0	1.5
1964	6.9	5.3	1.6
1965	8.2	5.9	2.2
1966	9.4	6.0	3.3
1967	5.8	2.7	2.9
1968	9.1	4.4	4.5
1969	7.7	2.3	5.0
1970	5.0	-0.3	5.4
1971	8.3	3.0	5.1
1972	11.5	5.7	4.1
1973	11.9	5.8	5.8
1974	8.1	-0.6	9.7
1975	8.0	-1.2	9.6
1976	10.9	5.4	5.2
1977	11.7	5.5	5.8
1978	12.8	5.0	7.4
1979	11.7	2.8	8.6
1980	8.9	-0.3	9.2
1981	12.4	2.5	9.6
1982	3.8	-2.1	6.0
1983	7.7	3.7	3.8
1984	10.6	6.5	3.8
Mean	8.4%	3.3%	5.0%
Standard Deviation	2.8%	2.5%	2.8%

Source: Office of Federal Statistical Policy and Standards, U.S. Department of Commerce, and the Council of Economic Advisers, 1980, Economic Indicators, various years.

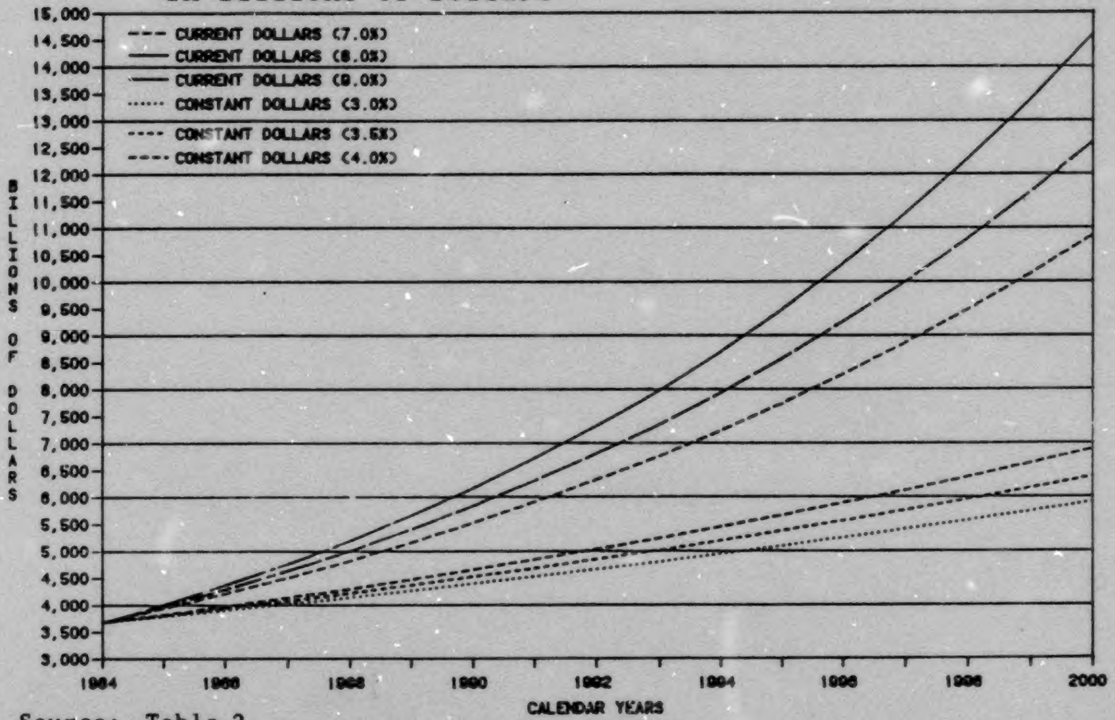
TABLE 3 Projected Growth in the Gross National Product in Both Current and Constant Dollars, 1984 to 2000, in Billions of Dollars

Year	Current Dollars[1] 7.0%	Constant Dollars 3.0%	Current Dollars 8.0%	Constant Dollars 3.5%	Current Dollars 9.0%	Constant Dollars 4.0%
1984	$ 3,680.8	$3,680.8	$ 3,680.8	$3,680.8	$ 3,680.8	$3,680.8
1985	3,938.5	3,791.2	3,975.3	3,809.6	4,012.1	3,828.0
1986	4,214.1	3,905.0	4,293.3	3,943.0	4,373.2	3,981.2
1987	4,509.1	4,022.1	4,636.7	4,081.0	4,766.7	4,140.4
1988	4,824.8	4,142.8	5,007.7	4,223.8	5,195.7	4,306.0
1989	5,162.5	4,267.1	5,408.3	4,371.6	5,663.4	4,478.3
1990	5,523.9	4,395.1	5,841.0	4,524.6	6,173.1	4,657.4
1991	5,910.6	4,526.9	6,308.2	4,683.0	6,728.6	4,843.7
1992	6,324.3	4,662.7	6,812.9	4,846.9	7,334.2	5,037.4
1993	6,767.0	4,802.6	7,357.9	5,016.6	7,994.3	5,238.9
1994	7,240.7	4,946.7	7,946.6	5,192.1	8,713.8	5,448.5
1995	7,747.5	5,095.1	8,582.3	5,373.9	9,498.0	5,666.4
1996	8,289.9	5,247.9	9,268.9	5,561.9	10,352.9	5,893.1
1997	8,870.2	5,405.4	10,010.4	5,756.6	11,284.6	6,128.8
1998	9,491.1	5,567.5	10,811.2	5,958.1	12,300.2	6,374.0
1999	10,155.4	5,734.6	11,676.1	6,166.6	13,407.2	6,628.9
2000	10,866.3	5,906.6	12,610.2	6,382.5	14,613.9	6,894.1

1. Percentages at the head of each column indicate annual rates of change.

Source: 1984 and 1985: UCLA Graduate School of Management, 1984a. 1986 through 2000: California Postsecondary Education Commission simulation.

FIGURE 2 Alternative Growth Projections for the Gross National Product in Current and Constant Dollars, 1984 to 2000, in Billions of Dollars



Source: Table 2.

ECONOMIC GROWTH IN CALIFORNIA

As might be expected, California's economic fortunes have paralleled the nation's. Although there is no official "Gross State Product" comparable to the Gross National Product, UCLA's economists have developed a measure which is accepted by many and which is presented in Table 4 for illustrative purposes. Perhaps more comparable are the figures for personal income which are official at both the national and State levels and which also provide an indication of California's relative share of the national economy.

What clearly emerges from Table 4 is the fact that California is increasing both its productivity and its share of national wealth. To a degree, this is a function of population growth, as indicated in Table 5 which shows that between 1971 and 1984 California's share of the nation's population increased from 9.82 percent to 10.83 percent -- a shift of 1.01 percentage points. Its productivity share increased from 10.4 percent in 1971 to 12.4 in 1981 -- a change of 2.0 points, or about twice the increase in population.

TABLE 4 Comparison Between the Gross National Product and the "Gross State Product" and Between National and California Personal Income Data, 1971 to 1984, in Billions of Current Dollars

Year	Gross National Product	Gross State Product	GSP as a Percent of GNP	National Personal Income	California Personal Income	CPI as a Percent of NPI
1971	$1,077.6	$112.4	10.4%	$ 859.1	$ 91.0	10.6%
1972	1,185.9	123.0	10.4	942.5	102.1	10.8
1973	1,326.4	140.3	10.6	1,052.4	111.6	10.6
1974	1,434.2	154.1	10.7	1,168.6	126.1	10.8
1975	1,549.2	170.8	11.0	1,265.0	138.7	11.0
1976	1,718.0	193.8	11.3	1,391.2	153.9	11.1
1977	1,918.3	218.8	11.4	1,540.4	172.4	11.2
1978	2,163.9	250.6	11.6	1,732.7	199.0	11.5
1979	2,417.8	284.1	11.8	1,951.2	228.5	11.7
1980	2,631.7	315.5	12.0	2,165.3	259.6	12.0
1981	2,957.8	354.3	12.0	2,429.5	291.9	12.0
1982	3,069.3	370.6	12.1	2,584.6	310.7	12.0
1983	3,304.8	401.9	12.2	2,744.2	331.8	12.1
1984	3,654.4	456.3	12.5	3,008.9	375.0	12.5

Source: Council of Economic Advisers; UCLA Graduate School of Management, 1984; and California State Department of Finance.

TABLE 5 Comparison Between the Total Populations of the United States and California, July 1, 1970, to July 1, 1985

Year	United States Population in Millions	Annual Percent Change	California Population in Millions	Annual Percent Change	California as a Percent of U.S.
1970	203,984	--	20,039	--	9.82%
1971	206,827	1.4%	20,346	1.5%	9.84
1972	209,284	1.2	20,585	1.2	9.84
1973	211,357	1.0	20,868	1.4	9.87
1974	213,342	0.9	21,173	1.5	9.92
1975	215,465	1.0	21,537	1.7	10.00
1976	217,563	1.0	21,935	1.8	10.08
1977	219,760	1.0	22,350	1.9	10.17
1978	222,095	1.1	22,839	2.2	10.28
1979	224,567	1.1	23,255	1.8	10.36
1980	227,236	1.2	23,771	2.2	10.46
1981	229,518	1.0	24,210	1.8	10.55
1982	231,786	1.0	24,722	2.1	10.67
1983	233,981	0.9	25,152	1.7	10.75
1984	236,108	0.9	25,576	1.7	10.83
1985 (est.)	238,631	1.1	25,998	1.6	10.89
Average		1.05%		1.75%	

Source: California State Department of Finance and United States Bureau of the Census.

Between 1971 and 1984, California's "Gross State Product" increased by an average of 11.4 percent per year, compared to an average increase of 9.9 for the Gross National Product, both in current dollars. A similar result is revealed for personal income, with figures of 11.5 and 10.1 for California and the nation, respectively. In each case, the percentage differential is about 1½ percent. Only about half or less of this difference can be accounted for by population growth alone, and it appears that the gap is widening between the economic productivity of this State and that of the nation as a whole. The reasons include California's extremely advantageous geographic position as the gateway to the Pacific-rim nations where trade has been increasing rapidly, the diversity of California's economy in fields ranging from agriculture to heavy industry, its strong emphasis on the fastest growing high-technology and service industries, the economic difficulties experienced recently in the heavily industrialized states of the East and northern Midwest, and California's massive and high quality educational system.

For the foreseeable future, there are no indications that California's natural and man-made advantages will decline in importance, even allowing for the increasing competition from the sunbelt states in the South and Southwest. Because of that fact, it is possible to assume that California will probably enjoy a somewhat larger increase in its economic productivity than the rest of the United States as a whole for the next 15 years. In the years between 1971 and 1984, in fact, "real" GNP increased by an average of 3.1 percent per year while California's "real" GSP went up an average of 3.4 percent. While that differential may have been affected by the extremely adverse conditions in the industrial East and Midwest, a continuing differential of at least 0.3 percent, and even 0.5 percent because of California's increasing share of GNP, is probably not unreasonable. Given the previously mentioned forecasts from the Congressional Budget Office, the U.S. Bureau of Labor Statistics, and UCLA's economists that national growth will average between 3 and 4 percent in real terms, a national growth rate through the year 2000 of 3.25 percent nationally and 3.75 percent in California appears as reasonable as any.

IMPACT OF INFLATION, FEDERAL DEFICITS, AND ENERGY PRICES

A major imponderable in this equation is surely inflation. Several years ago, when the Consumer Price Index was rising at annual double-digit rates, the cries of alarm were loud and broadly based. Many held the opinion that the rise in prices would eventually decline, but most thought any rate under 5 percent per year was impossible. In spite of that, the GNP deflator rose only 3.8 percent in 1983, as Table 2 indicated, and the CPI an even lower 3.2 percent (Table 1). In 1984, the increases were still very low at 3.7 percent and 4.4 percent, respectively. Naturally, it is impossible to determine if such pleasant statistics can reasonably or logically be projected to the end of the century, especially given the enormous imponderables of the federal deficit and the international debt situation. Either one could produce great economic uncertainty, and even virtual chaos if one chooses a worst-case scenario. Nevertheless, the United States appears to have entered an era of relative economic stability, and it may be possible for the federal government to contribute to that stability in the future through the use of various fiscal and monetary adjustments such as the manipulation of spending, deficits, and interest rates. This is by no means assured, of course for inflation can also be influenced by such uncontrollable factors as weather conditions, labor negotiations, and public attitudes and perceptions, but the prospects for stability and a sustained level of moderate economic growth appear better now than they have been in the past 15 years.

The Commission discussed the problem of the federal deficit at length in "Social and Economic Trends: 1985 - 2000," and there is no need to reiterate that discussion here. Suffice to say that there are doubts that, in the near future, the deficit can be reduced substantially from its current level of about $200 billion per year. Even the UCLA economists, once optimistic on deficit reduction, appear to have changed their minds. In September of 1984, they predicted a 1986 deficit of only $143.2 billion, but in December, they saw a reduction to only $181.2 billion by 1987. Even at that, however, with GNP increasing at current-dollar rates of 11.4 percent in 1984, 8.1

percent in 1985, and 8.2 percent in 1986, the deficit should become less of a relative drain on investment income and on the federal budget (moving from 5.4 percent of GNP in 1983 to a more manageable 3.9 percent in 1987). It should also have the effect of reducing interest rates slightly which will also tend to stabilize the international debt situation since it will be easier for foreign nations to service their loans if interest rates are lowered.

The final potential economic crisis is the one which created the several crises of the 1970s, and that is energy in general, and oil in particular. But even there, the indications are that, while oil will certainly increase in price in most of the coming 15 years, there will be no great shocks as there were in 1974 and 1979. Reserves have been demonstrated to be ample, both domestically and internationally, and the Organization of Petroleum Exporting Countries (OPEC) is clearly less able to influence the world price of oil than it once was. The current OPEC price of $29 per barrel has been in place for over a year, down from its high of $37 a barrel in 1981. Further, America's reliance on oil is less than it was, principally because of major conservation efforts, and there is a continuing interest in the development of alternative sources. Those alternatives will probably not contribute a great deal to the nation's or California's energy needs in the coming decade and a half, but even without them, it is not likely that energy will again emerge as the economic demon which plagued economic growth in the previous decade.

With all of those factors accounted for, this background paper assumes an annual inflation rate of 5.0 percent between 1985 and 2000, and therefore, a yearly current dollar growth in the Gross State Product of 8.75 percent and in the Gross National Product of 8.25 percent. Table 6 shows the effects of those projections, which are displayed as well in Figure 3.

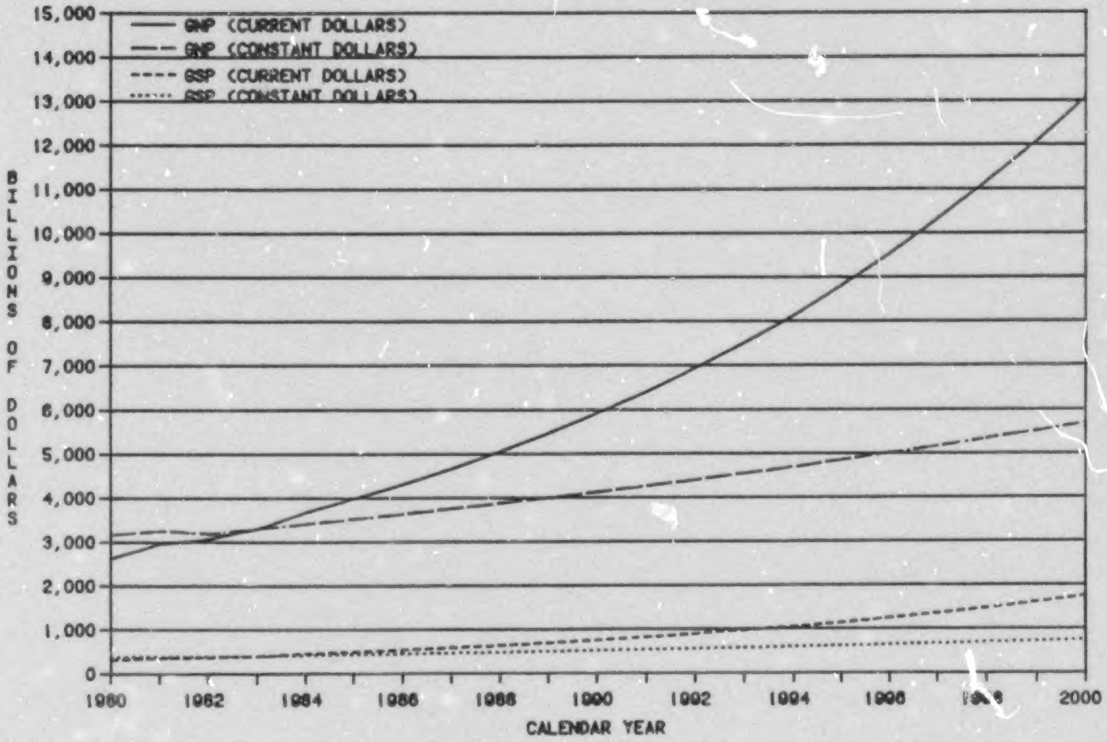
TABLE 6 *Projections of the Gross National Product and the Gross State Product for California, 1980 to 2000, in Billions of Dollars*

	United States Gross National Product		California Gross State Product		
Year	Current Dollars	Constant Dollars[2]	Current Dollars	Constant Dollars[2]	California GSP as a Percent of GNP (Constant Dollars)
1980	$ 2,631.7	$3,176.3	$ 315.5	$380.8	12.0%
1981	2,957.8	3,256.3	354.3	390.1	12.0
1982	3,069.3	3,187.1	370.6	384.8	12.1
1983	3,304.8	3,304.8	400.6	400.6	12.1
1984	3,680.8[1]	3,412.2	457.7[1]	415.6	12.2
1985	3,984.5[3]	3,523.1[4]	497.7[5]	431.2[6]	12.2
1986	4,313.2	3,637.6	541.3	447.4	12.3
1987	4,669.0	3,755.8	588.7	464.2	12.4
1988	5,054.2	3,877.9	640.2	481.6	12.4
1989	5,471.2	4,003.9	696.2	499.6	12.5
1990	5,922.6	4,134.0	757.1	518.4	12.5
1991	6,411.2	4,268.4	823.4	537.8	12.6
1992	6,940.1	4,407.1	895.4	558.0	12.7
1993	7,512.7	4,550.4	973.7	578.9	12.7
1994	8,132.4	4,698.2	1,058.9	600.6	12.8
1995	8,803.4	4,850.9	1,151.6	623.1	12.8
1996	9,529.7	5,008.6	1,252.4	646.5	12.9
1997	10,315.8	5,171.4	1,362.0	670.7	13.0
1998	11,166.9	5,339.4	1,481.1	695.9	13.0
1999	12,088.2	5,513.0	1,610.7	722.0	13.1
2000	13,085.5	5,692.1	1,751.7	749.0	13.2
Average Annual Increase	8.35%	3.73%	8.95%	4.15%	

1. UCLA projection.
2. 1983 dollars as adjusted for the GNP deflator.
3. Assumes a growth rate of 8.25 percent, 1985 - 2000.
4. Assumes a growth rate of 3.25 percent, 1985 - 2000.
5. Assumes a growth rate of 8.75 percent, 1985 - 2000.
6. Assumes a growth rate of 3.75 percent, 1985 - 2000.

Source: 1980-1983: Council of Economic Advisers, and UCLA Graduate School of Management, 1984a.
1984-1985: UCLA Graduate School of Management, 1984a and 1984b.
1982-2000: California Postsecondary Education Commission simulations.

FIGURE 3 Projections of the Gross National Product and the California Gross State Product, 1980 to 2000, in Billions of Dollars



Source: Table 6.

TWO

CALIFORNIA'S STATE BUDGET

To a degree, California's State Budget is a function of statewide and national economic conditions, but only to a degree, as its relationship to such major indicators as the Gross State Product or personal income is less than perfect. Over the past 15 years, the budget has been affected by a host of factors such as multiple annual changes in tax legislation, statewide ballot initiatives such as Proposition 7, which fully indexed personal income taxes, and by pockets of prosperity or recession in specific industries such as automobiles. Table 7 on page 18 shows, in terms of percentage changes, comparisons between the major components of the General Fund (personal income, sales, and bank and corporation taxes comprise about 90 percent of the total), the Gross State Product as computed by UCLA's economists, and personal income as reported by the Department of Finance for the years between 1971-72 and 1984-85.

From Table 7, it does not appear that tax revenues parallel economic conditions with any consistency. In fact, plotting correlation coeffecients between the individual tax sources and the primary economic indicators reveals a relationship between them that is less direct than might be expected, especially for income taxes. At the same time, the relationship between Gross State Product and personal income is quite close at 0.87:

Items Correlated	Correlation Coefficient
Gross State Product to:	
State Personal Income	0.87
State Income Taxes	-0.23
State Sales Taxes	0.50
Bank and Corporation Taxes	0.58
Total General Fund Revenue	0.29
State Personal Income to:	
State Income Taxes	-0.05
State Sales Taxes	0.43
Bank and Corporation Taxes	0.72
Total General Fund Revenue	0.36

These numbers indicate that there is a general relationship between economic ups and downs and the amount of money received by the State treasury. Correlation coefficients can range from values of -1.0 to +1.0, the first indicating that when a certain thing occurs, another thing always fails to occur, and the second showing that when one event occurs, the related event also occurs every time. As the numbers descend from +1.0 toward 0.0, the relationship becomes less perfect until, at 0.0, absolute randomness occurs. In the correlation coefficients listed above, it seems surprising that there is seemingly no relationship between personal income and State income taxes that personal income correlates modestly with sales taxes, and that it correlates fairly strongly with bank and corporation taxes. With personal income, the relationship becomes closer where "taxable" personal income is

TABLE 7 *Annual Percentage Changes in the Gross State Product, California Personal Income, and Major State Tax Sources, 1971-72 to 1984-85, in Current and Constant Dollars*

Year	Gross State Product[1]	California Personal Income	Income Tax Revenue	Sales Tax Revenue	Bank and Corporation Tax Revenue	Total General Fund Revenue
CURRENT DOLLARS						
1971-72	1.8%	8.1%	41.2%	11.5%	12.5%	19.0%
1972-73	9.4	8.3	5.5	9.1	30.7	10.8
1973-74	14.1	11.9	- 2.8	21.7	22.1	16.8
1974-75	9.8	10.6	40.9	25.9	18.6	23.7
1975-76	10.8	10.8	19.7	10.4	2.6	11.7
1976-77	13.5	11.3	21.7	15.1	27.6	18.1
1977-78	12.9	14.6	24.1	17.5	26.9	20.3
1978-79	14.5	14.5	2.0	14.9	14.4	11.1
1979-80	13.4	14.1	36.6	12.8	3.6	18.2
1980-81	11.1	13.1	1.9	7.4	10.7	5.8
1981-82	12.3	10.6	13.0	7.8	- 3.0	10.2
1982-83	4.6	4.9	2.9	1.3	- 4.3	1.3
1983-84[2]	8.1	9.4	19.3	13.6	26.2	11.6
1984-85[2]	14.3	11.1	7.9	10.6	25.0	8.3
1972 CONSTANT DOLLARS[3]						
1971-72	- 1.8%	- 1.1%	36.9%	8.1%	20.7%	15.4%
1972-73	5.9	8.5	1.1	4.5	25.3	6.1
1973-74	7.8	3.4	-10.2	12.4	12.7	7.8
1974-75	- 0.3	2.5	26.4	12.9	6.3	10.9
1975-76	0.4	- 0.4	11.4	2.7	- 4.5	3.9
1976-77	6.9	4.4	14.2	8.0	19.7	10.8
1977-78	5.4	4.6	15.7	9.6	18.3	12.2
1978-79	6.0	6.8	- 6.2	5.6	5.1	2.1
1979-80	2.3	3.6	18.6	- 2.1	-10.1	2.6
1980-81	- 3.9	- 1.7	- 8.5	- 3.5	- 0.5	- 5.0
1981-82	0.9	1.1	2.0	- 2.8	-12.5	- 0.6
1982-83	- 1.5	0.3	1.1	- 0.6	- 6.0	- 0.5
1983-84[2]	6.5	5.1	14.9	9.4	21.5	7.5
1984-85[2]	9.1	8.1	3.3	5.8	19.6	3.6

1. Computed for calendar years (1971-72 = 1971, etc.)
2. Estimate based on UCLA projections.
3. Computed by using the fiscal year California Consumer Price Index.

Source: California State Department of Finance, and UCLA Graduate School of Management, 1984b.

used rather than unadjusted or gross personal income. Even with that correction, however, charting the future state of the General Fund based on economic growth remains difficult. To see that more clearly, Figure 4 shows annual percentage changes in the Gross State Product, personal income, and the General Fund. As indicated earlier, the relationship is positive but less than exact.

Another way of looking at State revenues is to develop compound rates of change over a multi-year period. These rates are shown in Table 8. This table shows that General Fund revenues have tended to rise faster than either the Gross State Product or personal income, although there have been a number of years when the opposite was true, including the years of the two most recent recessions (1978-79 and 1980-81 to 1982-83). In part, however, these declines in State revenues were caused by the effects of numerous changes in the tax code, income tax indexing -- partially implemented by the

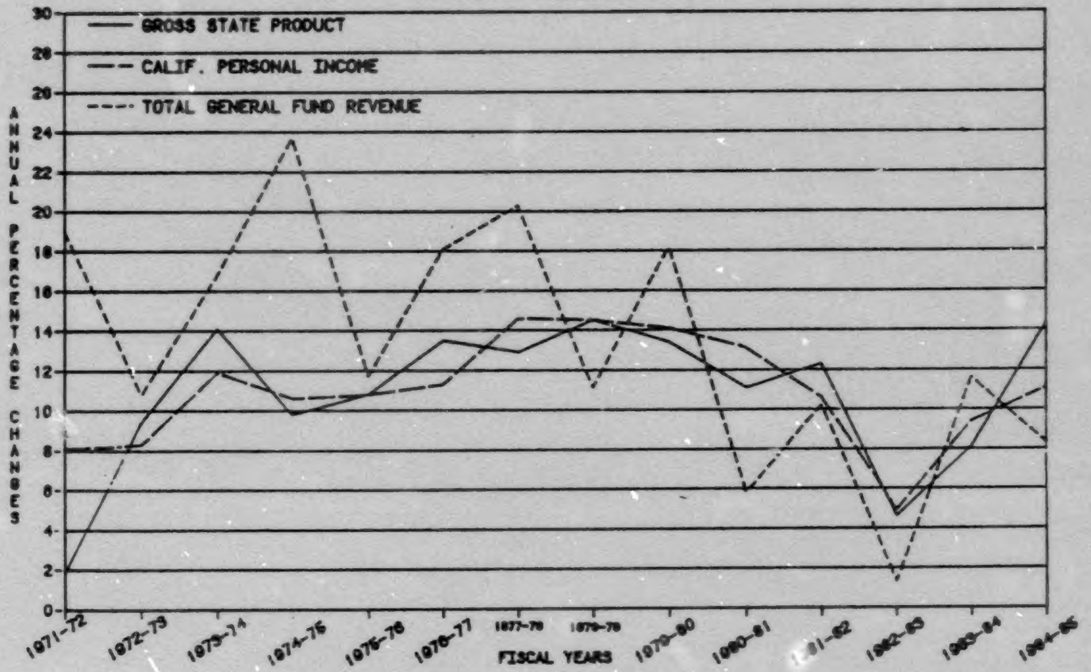
TABLE 8 Compound Rates of Change for the Gross State Product, State Personal Income, and Various State Revenue Sources in Both Current and Constant 1972 Dollars, 1971-72 to 1984-85

Item	Annual Rate of Change
Gross State Product	
Current Dollars	10.69%
Constant Dollars	3.04
State Personal Income	
Current Dollars	10.85%
Constant Dollars	3.18
State Income Tax Revenue	
Current Dollars	15.86%
Constant Dollars	7.84
State Sales Tax Revenue	
Current Dollars	12.67%
Constant Dollars	4.87
Bank and Corporation Tax Revenue	
Current Dollars	15.50%
Constant Dollars	7.51
Total General Fund Revenue	
Current Dollars	13.18%
Constant Dollars	5.35

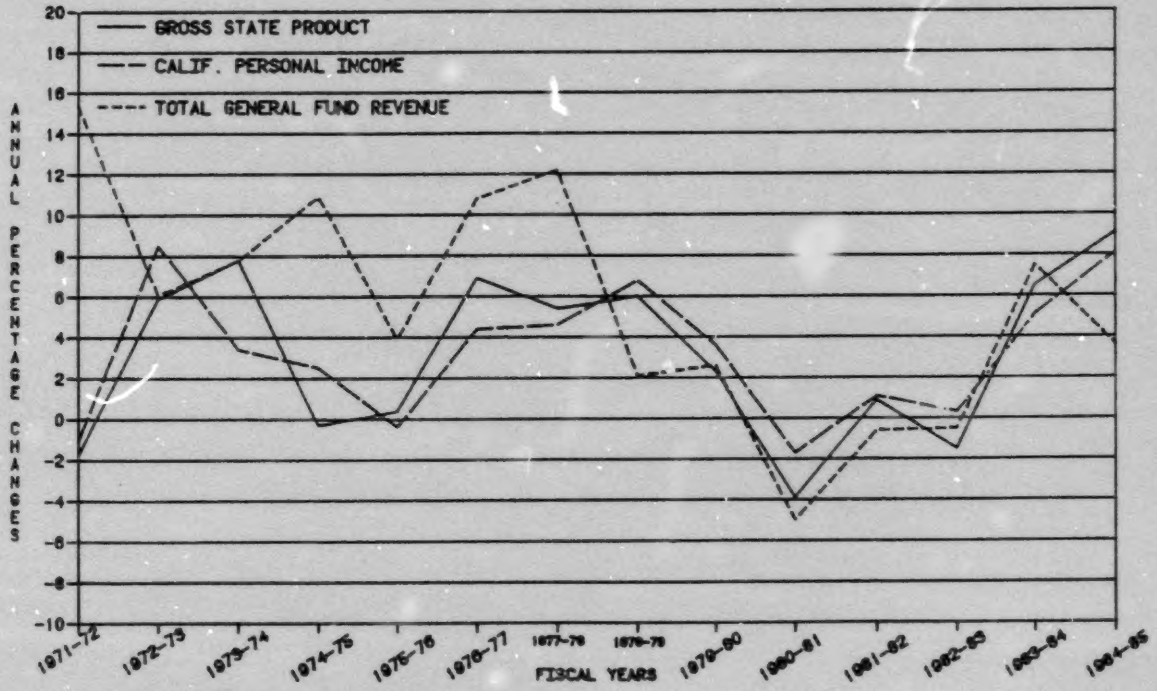
Source: California State Department of Finance, and UCLA Graduate School of Management, 1984b.

FIGURE 4 Annual Percentage Changes in the Gross State Product, California Personal Income, and the State General Fund, 1971-72 to 1984-85, in Current and Constant Dollars

CURRENT DOLLARS



CONSTANT DOLLARS



Source: Table 7.

Legislature in 1979, and then fully under Proposition 7 in 1982 -- and by the recessions themselves. To make this point further, it should be noted that State income tax revenues increased at an annual rate of 20.5 percent between 1970-71 and 1977-78 in current dollars but by only 11.4 percent since, including the major expansionary estimate for 1984-85. By contrast, sales tax revenues, where the 6.0 percent rate has not changed since the late 1960s, rose by an average of 15.7 percent for the first period and 9.7 percent for the second, a much smaller difference than for income taxes.

In considering projections to the year 2000, it must be stressed that any forecast will be inaccurate to some degree. In part, this is due to the fact that future adjustments to the tax laws (such as Proposition 7) cannot be predicted, but also because of the volatility of the revenue systems themselves. Even using constant dollars, which factor out inflation and, therefore, tend to be a more stable measure of economic or revenue growth, the annual changes in General Fund revenues since 1971-72 have varied from a decline of -5.0 percent to an increase of 15.4 percent. Current dollar totals have varied from a low of 1.3 percent to a high of 23.7. Accordingly, predicting exactly what will happen in any given year is simply impossible.

What can be attempted, however, is a long-range forecast based on current knowledge of the tax structure and the previously noted estimates for economic growth. These include the fact that California's tax system is still basically progressive in nature and tends to increase revenues at a rate faster than the economy grows, as noted in Table 8.

State Income Tax: Historically, the most progressive tax has been that levied on personal income, but with indexing, the growth in that tax must now be adjusted downward to about the same increase anticipated to occur with personal income, rather than a percentage figure substantially above it as has been true for the years since 1971-72. It has already been noted that income tax revenues increased at an average annual rate of 11.4 percent between 1978-79 and 1984-85. State personal income increased by 11.8 percent for those same years, and by 10.85 percent since 1971-72. The Gross State Product has increased only slightly less since 1971-72 at 10.7 percent per year in current dollars. In constant dollars, the figures are: State income taxes, 3.2 percent; personal income, 3.3 percent; and Gross State Product, 2.7 percent. The latter two figures are somewhat more divergent than normal (GSP and personal income differed only by 0.16 percentage points between 1971-72 and 1984-85 rather than the 0.60 shown here), but from all the data, several conclusions can be reached:

1. California's Gross State Product tends to rise faster than the Gross National Product by a factor of about half a percent per year.

2. California personal income tends to rise at a very slightly faster rate than the Gross State Product, by about one- or two-tenths of a percent per year.

3. In the future, due principally to the influence of indexing, State income tax revenues will probably rise at about the same rate as personal income, about 3.5 to 4.0 percent in real terms, although there will be wide fluctuations in the annual increases.

State Sales Tax: Sales tax revenues have also tended to rise more quickly than the economy as a whole. Between 1971-72 and the forecasted 1984-85 fiscal years, sales tax revenues increased at an annual rate of 12.7 percent in current dollars and 4.9 percent in 1972 constant dollars. As with the other revenue sources, sales tax revenues were also volatile, ranging from a low 1.3 percent increase in 1982-83 to a high of 25.9 percent in 1974-75, a year in which the California Consumer Price Index increased by 11.5 percent. In constant or "real" dollars, increases and decreases in Sales Tax revenues have ranged from a decline of -3.5 percent in 1980-81 to a rise of 12.9 percent, again in 1974-75. Most of their fluctuations, as with income tax revenues, was caused by tax legislation, expecially laws which altered the time schedules for collection to the point where taxes collected in one year were deposited in the treasury in a different year.

Sales tax revenues also tend to fluctuate widely because they are heavily dependent on the sales of expensive consumer durables such as automobiles and appliances. During the severe recession of the early 1980s, sales tax revenues actually declined in real terms for four consecutive years between 1979-80 and 1982-83. In the coming decade and a half, the productivity of the sales tax will depend largely on the continuing production and sale of tangible items, and most forecasts indicate that that production will continue and indeed, increase. Accordingly, while annual increases in sales tax revenues have averaged about 3.0 percent less than those derived from the income tax, it seems plausible that indexing of the latter will move the two revenue producers much closer together. For the purposes of this forecast, they are assumed to rise slightly faster than income tax revenues, about 3.75 to 4.25 percent per year, compared to the historical rate of 4.9 percent since 1971-72.

Bank and Corporation Tax: Bank and corporation taxes have increased dramatically during the recent recovery -- 26.2 percent in current dollars during 1983-84 and another 25.0 percent, as projected by the Department of Finance for 1984-85. In constant dollars, the figures are 21.5 and 19.6 percent, respectively. Since 1971-72, bank and corporation tax revenues have increased at an annual rate of 15.5 percent in current dollars and 7.5 percent in constant dollars -- about the same as the State income tax and about 4½ percentage points higher than the real increase in either the Gross State Product or personal income. In the future, there is no reason to suspect that that rate will decline significantly from its recent historical level, but the staggering increases in the previous and current fiscal years do seem impossible to sustain for long.

Evidence for that caution comes from the fact that bank and corporation tax revenues are just as unpredictable as those for income and sales taxes. Since 1971-72, the range has been greater, in real terms, for this tax source than for any other, moving from a decline of 12.5 percent in 1981-82 in the depths of the recession, to a rise of 25.3 percent in 1972-73, both in constant dollars. This should not be too surprising, however, since corporate profits are always the difference between receipts and costs. In recessionary times, many normally prosperous companies will suffer losses and hence pay no taxes at all. When the economy comes back strongly, profits can increase very rapidly. Thus, the volatility of bank and corporation tax receipts is only a function of the volatility of corporate profits from year to year. If the two most recent bulges in the bank and corporation tax revenue picture are omitted, the historical rate is reduced from 15.5 percent to 13.9 in current dollars and from 7.5 percent to 5.5 percent in 1972 constant dollars. Because of that, a more conservative long-range estimate of between 5.25 and 5.75 percent has been chosen for the projection.

It was indicated earlier that the three major tax sources (income, sales, and bank and corporation taxes) constituted about 90 percent of the General Fund. As of the 1983-84 fiscal year, these revenue sources represented 88.9 percent of the total, and they are projected to represent 91.7 percent in 1984-85 by the Department of Finance. Still, as recently as 1970-71, they amounted to 79.5 percent, and the percentage has been increasing steadily for the past 15 years. Table 9 shows these changes.

Tables 10 and 11 on pages 24 and 25 show projections of the condition of the General Fund through the year 2000. The assumptions underlying those projections include the following:

1. The Gross National Product will rise at an average annual rate of 8.25 percent in current dollars unadjusted for inflation, and 3.25 percent in constant dollars.

TABLE 9 Comparison Among the Several Revenue Sources for the General Fund, 1970-71 to 1984-85, in Millions of Dollars

Year	Total Revenue from Income, Sales, and Bank and Corporation Taxes	Percent	Revenue from Miscellaneous Sources	Percent	Total General Fund Revenue
1970-71	$ 3,604.5	79.5%	$ 929.0	20.5%	$ 4,533.5
1971-72	4,464.1	82.7	930.7	17.3	5,394.8
1972-73	4,948.7	82.8	1,027.6	17.2	5,976.3
1973-74	5,564.9	79.8	1,412.6	20.2	6,977.5
1974-75	7,204.0	83.5	1,425.5	16.5	8,629.6
1975-76	8,094.8	84.0	1,544.2	16.0	9,639.0
1976-77	9,683.7	85.1	1,696.9	14.9	11,380.6
1977-78	11,780.5	86.0	1,914.5	14.0	13,695.0
1978-79	12,922.0	84.9	2,295.5	15.1	15,218.5
1979-80	15,494.0	86.2	2,490.6	13.8	17,984.6
1980-81	16,365.1	86.0	2,658.0	14.0	19,023.1
1981-82	17,690.4	84.4	3,269.9	15.6	20,960.3
1982-83	17,891.8	84.3	3,341.4	15.7	21,233.2
1983-84[1]	21,080.0	89.0	2,620.0	11.0	23,700.0
1984-85[2]	23,530.0	91.7	2,138.0	8.3	25,668.0

1. Estimated.
2. Projected.

Source: Governor's Budgets and California State Department of Finance.

2. The Gross State Product will rise at an average annual rate of 8.75 percent in current dollars and 3.75 percent in constant dollars.

3. State personal income will rise at an average annual rate of 8.9 percent in current dollars and 3.9 percent in constant dollars.

4. The California Consumer Price Index will rise at an average annual rate of 5.0 percent.

5. Personal income tax revenues will increase annually at a current dollar rate of 8.75 percent and a constant dollar rate of 3.75 percent.

TABLE 10 *Current Dollar Projections of Various Tax Revenues Plus Total General Fund Revenue, 1984-85 to 2000-01, in Millions of Dollars*

Year	Income Tax Revenue (8.75%/Year)	Sales Tax Revenue (9.00%/Year)	Bank and Corporation Tax Revenue (10.50%/Year)	Miscellaneous Revenue[1]	Total General Fund Revenue
1984-85[2]	$10,485.0	$ 9,705.0	$ 3,525.0	$2,361.9	$ 26,076.9
1985-86[2]	11,165.0	10,618.0	3,950.0	2,189.2	27,922.2
1986-87[3]	12,400.2	11,530.5	4,304.1	2,622.9	30,857.7
1987-88	13,485.2	12,568.3	4,756.0	2,770.3	33,579.8
1988-89	14,665.1	13,699.4	5,255.4	2,923.5	36,543.4
1989-90	15,948.3	14,932.3	5,807.2	3,082.2	39,770.0
1990-91	17,343.8	16,276.3	6,417.0	3,246.3	43,283.4
1991-92	18,861.4	17,741.1	7,090.8	3,415.4	47,108.7
1992-93	20,511.7	19,337.8	7,835.3	3,589.2	51,274.0
1993-94	22,306.5	21,078.2	8,658.0	3,767.2	55,809.9
1994-95	24,258.3	22,975.3	9,567.1	3,948.7	60,749.4
1995-96	26,380.9	25,043.0	10,571.7	4,133.0	66,128.6
1996-97	28,689.3	27,296.9	11,681.7	4,319.2	71,987.1
1997-98	31,199.6	29,753.6	12,908.3	4,506.1	78,367.6
1998-99	33,929.6	32,431.5	14,263.7	4,692.4	85,317.2
1999-00	36,898.4	35,350.3	15,761.3	4,876.5	92,886.5
2000-01	40,127.0	38,531.8	17,416.3	5,056.6	101,131.7
Annual Percent Change	8.75%	9.00%	10.50%	4.87%	8.84%

1. Miscellaneous taxes tend to be more stable over time, and hence grow less rapidly. Accordingly, this category is estimated at 9.1 percent of General Fund revenue in 1984-85, 7.8 percent in 1985-86 (Department of Finance estimates), then at 8.5 percent in 1986-87 and declining as a share of General Fund revenue by 0.25 percent per year thereafter.
2. California State Department of Finance estimates.
3. Annual percentage increases (e.g., 8.75 percent for Income Tax Revenue) employ the 1984-85 fiscal year as a base.

6. Sales tax revenues will increase annually at a current dollar rate of 9.0 percent and a constant dollar rate of 4.0 percent.

7. Bank and corporation tax revenues will increase annually at a 5.55 percent constant dollar rate and a 10.5 percent current dollar rate.

8. The three major revenue sources (income, sales, and bank and corporation taxes) will constitute 89.0 percent of total General Fund revenues through 2000.

TABLE 11 Constant Dollar Projections (1984-85 Dollars) of Various Tax Revenues Plus Total General Fund Revenue, 1984-85 to 2000-01, in Millions of Dollars

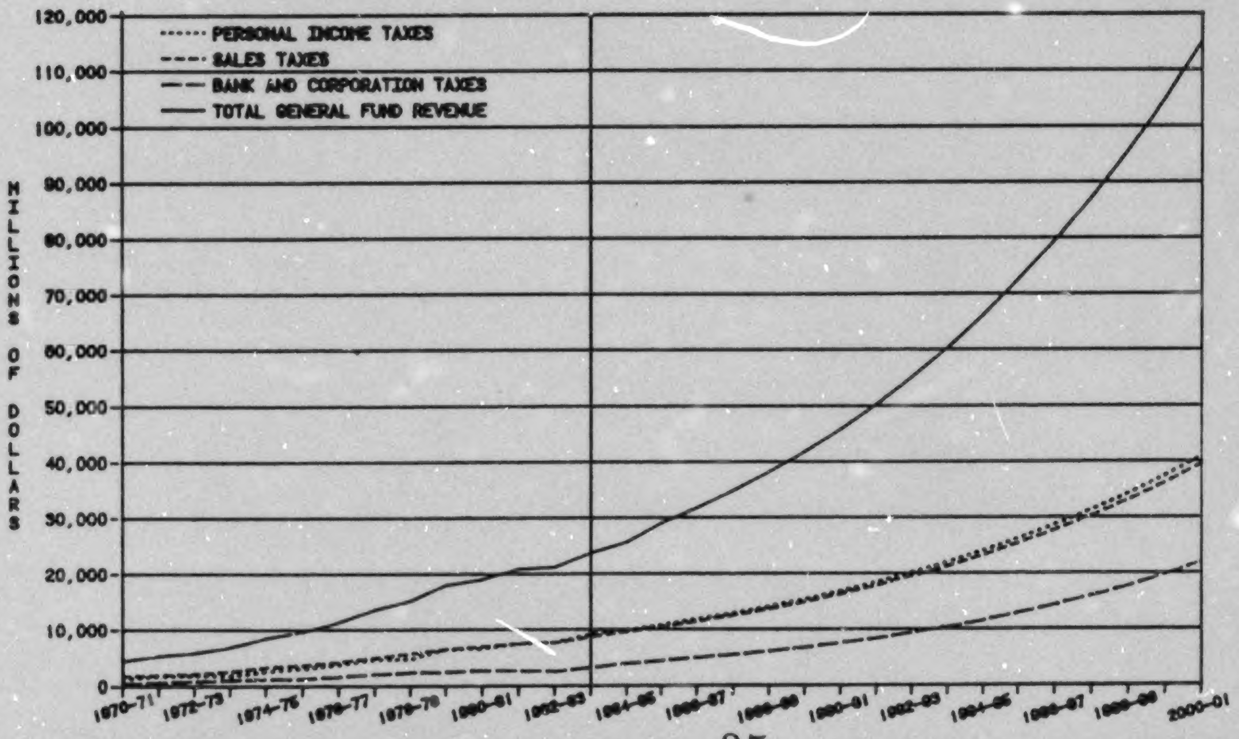
Year	Income Tax Revenue (3.75%/Year)	Sales Tax Revenue (4.0%/Year)	Bank and Corporation Tax Revenue (5.5%/Year)	Miscellaneous Revenue[1]	Total General Fund Revenue
1984-85[2]	$10,485.0	$ 9,705.0	$ 3,525.0	$ 2,361.9	$26,076.9
1985-86[3]	10,878.2	10,093.2	3,718.9	2,367.6	27,057.9
1986-87	11,286.1	10,496.9	3,923.4	2,388.0	28,094.4
1987-88	11,709.3	10,916.8	4,139.2	2,406.7	29,172.0
1988-89	12,148.4	11,353.5	4,366.9	2,423.4	30,292.2
1989-90	12,604.0	11,807.6	4,607.0	2,437.9	31,456.5
1990-91	13,076.7	12,279.9	4,860.4	2,450.0	32,667.0
1991-92	13,567.0	12,771.1	5,127.7	2,459.6	33,925.4
1992-93	14,075.8	13,282.0	5,409.8	2,466.4	35,234.0
1993-94	14,603.6	13,813.2	5,707.3	2,568.5	36,692.6
1994-95	15,151.3	14,365.8	6,021.2	2,572.5	38,110.8
1995-96	15,719.5	14,940.4	6,352.4	2,573.0	39,585.3
1996-97	16,308.9	15,538.0	6,701.8	2,569.9	41,118.6
1997-98	16,920.5	16,159.5	7,070.4	2,562.8	42,713.2
1998-99	17,555.0	16,805.9	7,459.2	2,551.4	44,371.5
1999-00	18,213.4	17,478.2	7,869.5	2,535.3	46,096.4
2000-01	18,896.4	18,177.3	8,302.3	2,514.2	47,890.2
Annual Percent Change	3.75%	4.00%	5.50%	0.39%	3.87%

1. Miscellaneous taxes tend to be more stable over time, and hence grow less rapidly. Accordingly, this category is estimated at 9.1 percent of General Fund revenue in 1984-85 (Department of Finance estimate), and then at 8.75 percent in 1985-86 and declining at 0.25 percent per year thereafter. Actual revenue from this source actually declines in constant dollars beginning in 1996-97 due to the increasing share of the General Fund occupied by the three major tax sources.
2. California State Department of Finance estimates.
3. Annual percentage increases (e.g., 3.75 percent for Income Tax Revenue) employ the 1984-85 fiscal year as a base.

It is obvious that any long-range projections such as those contained in Tables 10 and 11 (shown graphically for current dollars in Figure 5) are, and can only be, indicators of trends based primarily on prior experience. Given the vagaries of both economic realities and tax revenues, the actual figures could turn out to be far different from those projected. As shown in Tables 10 and 11 and Figure 5, the forecasts fit nicely into smooth curves, but it is clear from history that no such regularity will actually occur. Throughout this century, and in the previous one, both the United States and California have been subjected to numerous shocks, and it seems virtually certain that the next 15 years will provide their fair share of recessions brought on by either natural disasters such as earthquakes or major weather changes, national crises, or international disorder. Major changes in the federal deficit and interest rates, or statutory changes by either the federal or State governments could have a major effect on the projections contained in this chapter, and a number of changes to the federal tax codes are currently receiving serious consideration.

In spite of those considerations, all projections are forced to assume stability, however unlikely stability may actually be, for there is no way to predict the actual events that may cause destabilization. Given that, the forecasts contained here should not be regarded as precise predictions but instead only one view of the future seen through an historical lens. The hope is not that it is substantially accurate, but only that it is as good a guess as any available. Over the coming years, as planning proceeds, it will be adjusted as necessary.

FIGURE 5 State General Fund Revenues from Personal Income, Sales, and Bank and Corporation Taxes, and Total General Fund Revenue, Actual for 1970-71 Through 1982-83 and Projected for 1983-84 Through 2000-2001, in Current Dollars



Source: Table 10.

PART TWO

POSTSECONDARY EDUCATION FINANCE

THREE

THE SIZE AND VARIETY OF AMERICAN POSTSECONDARY EDUCATION

Postsecondary education may be defined as any organized instruction offered to those who have graduated from high school or who are at least 18 years old. It refers to all education beyond secondary school without reference to level of offering or student qualifications; it may be for credit or no credit; it may be a curriculum leading to a collegiate degree or a short-term program for which no certification of any kind is granted. It includes "traditional" higher education in colleges and universities as well as adult education, continuing education, lifelong learning, and community education in non-academic organizations and agencies. Postsecondary education is distinguished from other learning in that it (1) is organized or formal, and (2) occurs beyond secondary institutions.

Under this definition, postsecondary institutions are extremely diverse. They range from multi-billion dollar research universities where the instructional expenditures for thousands of students are but a fraction of their total budget, to private aviation schools where instruction is a close one-to-one and constitutes the entire budget. The students' commitment can range from continuous instruction for seven years beyond a bachelor's degree (for medical doctors) to a day's seminar on management techniques. Obviously, the arrangements to finance postsecondary education are just as diverse as these other characteristics.

COLLEGES AND UNIVERSITIES IN THE UNITED STATES

Coping with the diversity of postsecondary education requires some initial organizing principle. Typically, this principle has been the distinction between "higher education" (degree-granting colleges and universities) and "all the rest." In 1982, America's colleges and universities numbered 3,270 -- 46 percent of which were "public" (supported directly by taxes) and the rest were "independent" or "private" (not supported directly or primarily by taxes). Altogether, these institutions enrolled over 12,400,000 students in credit courses and spent $70.34 billion on all their activities, or 2.1 percent of the Gross National Product. Table 12 on page 32 highlights some of their other general characteristics. As it shows, the majority of institutions are independent rather than public, the independent institutions enroll only 22 percent of all students, thus losing the economies of scale enjoyed by larger public institutions. In addition, relatively few independent institutions are two-year colleges while many of them are doctoral institutions, which represent, respectively, the low and high ends of the cost spectrum. This causes their total expenditures divided by their full-time equivalent students to be roughly one-third higher than for tax-supported, institutions (National Center for Education Statistics, 1984b, p. 84).

In 1984-85, enrollment trends among the nation's colleges and universities are mixed. Despite this, most experts predict that the total number of

TABLE 12 Characteristics of American Colleges and Universities, 1982

Kind of Institution and Characteristic	Numbers in 1982
PUBLIC	
Total number of public institutions	1,510
Number of public two-year community colleges or vocational/technical institutes	949
Number of public doctoral granting universities	203
Total credit enrollment	9,692,280
Total enrollment change since 1970	+46%
INDEPENDENT	
Total number of independent institutions	1,527
Number of religiously affiliated institutions	773
Number of independent two-year colleges or vocational/technical institutes	187
Number of independent doctoral granting universities	233
Number of independent institutions with public units or divisions	233
Total credit enrollment	2,733,720
Total enrollment change since 1970	+23%

Source: National Center for Education Statistics, 1984b, pp. 61-65, 70.

students will decline during the rest of the 1980s because of declines in the traditional college-age population. From the record enrollment of 12.4 million in 1982, the National Center for Education Statistics projects a decline to 11.8 million in 1992 -- a decrease of 5 percent -- before an upward trend takes place in the later 1990s. However, full-time equivalent enrollment -- most often the basis for state formulas and fiscal calculations -- is expected to decline nationwide by 10 percent during the next decade because of the decline in the numbers of younger students who take heavier course loads (National Center for Education Statistics, 1984b, pp. 61-63). This kind of "macro analysis" based on traditional college-going rates of certain groups is not always applicable to individual states like California, however, or to the specific kinds of institutions, such as universities or two-year colleges, within states.

POSTSECONDARY EDUCATION OUTSIDE COLLEGES AND UNIVERSITIES

In addition to millions of students regularly enrolled in American colleges and universities, many more participate in other kinds of postsecondary education: 53.1 million in 1978, according to one estimate (Andrews, 1980, p. 112) and 47 million according to another estimate two years later (Peterson, 1983, pp. 15-6). Table 13 shows the distribution of these students.

Unlike the trends [illegible] enrollments in most colleges and universities, enrollments in non-credit and "adult education" are growing rapidly, with estimates of the increases ranging from 5 to 15 percent annually. In 1983, an international survey by the European Organization for Economic Cooperation and Development found that "the volume of training in [American] industry has been increasing at a rate of 20 percent per year [and] commercial training firm volume has grown at twice the rate of growth of industry training." (Organization for Economic Cooperation and Development, 1983, p. 44.) Furthermore, as the "baby boom" generation of the 1940s and 1950s enter

TABLE 13 Institutional Sources of Education for Students Not Regularly Enrolled in a College or University, 1978, Listed in the Order of the Number of Participants

Source	Number of Participants
Agriculture extension	12,000,000
Community organizations	7,400,000
Private industries	5,800,000
Professional associations	5,500,000
City recreation programs	5,000,000
Programs in churches and synagogues	3,300,000
College and university extension programs and community education	3,300,000
Programs conducted by governments	3,000,000
Public school adult education programs	1,800,000
Federal manpower programs	1,700,000
Programs in the military	1,500,000
Graduate and professional education	1,500,000
Programs offered by trade unions	600,000
Community education programs offered by educational institutions	500,000
Free universities	200,000
TOTAL	53,100,000

Source: Andrews, 1980, p. 112.

middle age and the workforce, this demand for instruction outside the confines of traditional curricula should grow even more (Cross and McCartan, 1984, p. 1).

In sum, postsecondary education in America is an enormous enterprise, both in terms of people and purposes. Although there is no definitive survey for the economic resources used for postsecondary education in the United States, it would be reasonable to estimate that the expenditures of colleges and universities ($70.3 billion in 1981-82) constitute about two-thirds of the total. Therefore, postsecondary education represents an annual expenditure of roughly $100 billion, or approximately 2.5 percent of the Gross National Product.

FOUR

IMPORTANT CONCEPTS IN POSTSECONDARY FINANCE

Given the magnitude and diversity of postsecondary education, it is natural that the finance of these institutions is complicated. Fortunately, it is not necessary to understand every detail in order to comprehend how their financing "works." What follows are concepts that explain the system of postsecondary finance in general, and the ways that this system adapts to change.

ONE: As They Grow, Postsecondary Institutions Add Many Diverse Activities.

Clearly, growth alters an institution in more ways than just its size. Chief among these ways are its economic structure and how it is organized to achieve increasingly diverse purposes.

In order to illustrate this, it is necessary to define and organize the spectrum of institutions. Several years ago, higher education professionals began to classify colleges and universities according to their attributes. Originally, the distinctions were simple: universities, four-year colleges, and two-year colleges. Gradually, the categories became more numerous and captured an ever-wider range of differences among institutions. Table 14 on page 34 describes the most recent classification.

As institutions grow (even if they do not "climb" the classification ladder), they assume more responsibilities and add activities. In terms of their organization, they develop divisions along economic lines, something like diversified corporations in the private sector. Thirty years ago, this trend away from instruction as the exclusive emphasis in higher education was reflected by the controversial expansion of institutional missions to "education, research, and public service." Now, even that phrase is too limited to describe the wide-ranging activities of most major colleges and universities.

Again, it was necessary to classify these activities and their budget categories. After many false starts, a standard "Program Classification Structure" has been generally accepted throughout the realm of higher education, as shown in Figure 6 on page 35.

This classification attempts to capture all possible kinds of expenditures, and to organize them under one of eleven "programs": instruction, research, public service, academic support, and the like. Sub-elements further distinguish the components of these programs, generally down to a narrow detail. Overall, the Program Classification Structure demonstrates the wide range of economic activities present in many institutions.

TABLE 14 The Latest Classification System for Colleges and Universities Designed by the National Center for Higher Education Management Systems

Category	Number in 1980	Definition	California Examples
Research Universities With Medical Schools Without Medical Schools	 60 30	Offer significant no. of doctorates; receive considerable funds (generally in the top 100 nationally).	UC Davis U.C. Berkeley Stanford University International College
Universities With Medical Schools Without Medical Schools	 18 58	Offer doctorates, but without large research component.	UC Santa Cruz Claremont Graduate School
Comprehensive Institutions	418	Strong, diverse postbaccalaureate program (including first-professional), but no significant doctoral education.	CSU campuses Pepperdine University Golden Gate University
General Baccalaureate Institutions	711	Not significantly engaged in post-baccalaureate education, but grant degrees in three or more programs, or offer a degree in interdisciplinary studies.	No Public Institutions Pomona College Occidental College Scripps College
Two-Year Institutions Academic/Comprehensive Occupational Emphasis	 760 589	Fewer than 25 percent of degrees awarded at baccalaureate level.	Most California Community Colleges are comprehensive, except some like Los Angeles Trade-Technical and San Diego Vista. Deep Springs College Brooks College
Health Professional Institutions	54	Health sciences is their primary objective (medical, dentistry, optometry, pharmacy nursing). Such degrees exceeds 50 percent of all awarded.	UC San Francisco Northern California Chiropractic
Other Professional and Specialized Institutions (Other health institutions; education schools; engineering schools; divinity schools; business and management schools; art, music, and design schools; law schools; and U.S. service schools)	548	Generally, these institutions award at least half of all their degrees in one or two fields.	California Maritime Academy California Institute of the Arts Western States College of Engineering National University Graduate Theological Union

Sources: Halstead and McCoy, 1984, pp. 487-489, 493-495; and Millett, 1984, pp. 148-55. (The California Postsecondary Education Commission has no opinion on the accuracy of the Halstead and McCoy examples.)

FIGURE 6 Program Classification Structure for Expenditures in Higher Education Offered by the National Center for Higher Education Management Systems

1.0 INSTRUCTION

- 1.1 General Academic Instruction (Degree-related)
- 1.2 Vocational/Technical Instruction (Degree-related)
- 1.3 Requisite Preparatory/Remedial Instruction
- 1.4 General Studies (nondegree)
- 1.5 Occupation-related Instruction (Nondegree)
- 1.6 Social Roles/Interaction Instruction (Nondegree)
- 1.7 Home and Family Life Instruction (Nondegree)
- 1.8 Personal Interest and Liesure Instruction (Nondegree)

2.0 RESEARCH

- 2.1 Institutes and Research Centers
- 2.2 Individual or Project Research

3.0 PUBLIC SERVICE

- 3.1 Direct Patient Care
- 3.2 Health Care Supportive Services
- 3.3 Community Services
- 3.4 Cooperative Extension Services
- 3.5 Public Broadcasting Services

4.0 ACADEMIC SUPPORT

- 4.1 Library Services
- 4.2 Museum and Gallaries
- 4.3 Educational Media Services
- 4.4 Academic Comupting Support
- 4.5 Ancillary Support
- 4.6 Academic Administration
- 4.7 Course and Curriculum Development
- 4.8 Academic Personnel Development

5.0 STUDENT SERVICE

- 5.1 Student Service Administration
- 5.2 Social and Cultural Development
- 5.3 Counseling and Career Guidance
- 5.4 Financial Aid Administration
- 5.5 Student Auxiliary Services
- 5.6 Intercollegiate Athletics
- 5.7 Student Health/Medical Services

6.0 INSTITUTIONAL ADMINISTRATION

- 6.1 Executive Management
- 6.2 Financial Management and Operations
- 6.3 General Administration and Logistical Service
- 6.4 Administrative Computing Support
- 6.5 Faculty and Staff Auxiliary Services
- 6.6 Public Relations/Development
- 6.7 Student Recruitment and Admissions
- 6.8 Student Records

7.0 PHYSICAL PLANT OPERATION

- 7.1 Physical Plant Administration
- 7.2 Building Maintenance
- 7.3 Custodial Services
- 7.4 Utilities
- 7.5 Landscape and Ground Maintenance
- 7.6 Major Repairs and Renovation

8.0 STUDENT FINANCIAL SUPPORT

- 8.1 Scholarships
- 8.2 Fellowships

9.0 INDEPENDENT OPERATIONS

- 9.1 Independent Operations/Institutional
- 9.2 Independent Operations/External Agencies

Source: National Center for Higher Education Management Systems, 1978.

What are the practical effects of this diversification, with, in many instances, only thin connections among parts? One effect is to fragment the campus -- at least from a fiscal standpoint -- into several independent operations. Table 15 shows some examples of the functionally different components in higher education.

Another effect is that most colleges and universities are not in the "business" of educating students exclusively, and some not even primarily. Rather they are in several businesses at once (although most relate to the transmission of information) and their activities result -- to use a phrase in economics -- in numerous "joint products" where results and costs are mixed. Given the nature of these complicated organizations, it is not surprising that many of them appear to suffer from a kind of institutional schizophrenia.

TABLE 15 The Organizational Components of Higher Education

Component	Major Purpose	Kind of Employees	Related Groups
Education	Instruction	Instructors Technicians Researchers	Other faculty; those in similar disciplines
Sales (sports events; bookstores; dormitories; food services)	Generate commercial revenues or at least cover expenses.	Sales staff Business-oriented professionals Promotional staff	Occupations and pursuits similar in the private sector
Contracted Services	Providing specific services for a fee.	Faculty Research and development staff	Corporations Foundations Government agencies
Fiduciary	Solicit and preserve property and assets.	Certified public accountants Public relations staff Property managers	Real estate salespersons Investors Bankers Stocks and bond brokers

Source: California Postsecondary Education staff analysis.

TWO: Postsecondary Institutions Have Many Clienteles with Different Interests.

The complicated structure of colleges and universities is also reflected in the fact that many clienteles provide income for them, presumably in return for goods and services which they receive. Since these clienteles often have different expectations for the expenditures of these institutions, they introduce another source of tension.

The popular conception is that students are the primary clientele of these institutions. In terms of income, however, students directly provide a relatively small portion of institutional income, especially in public institutions compared to private ones and in two-year compared to four-year colleges. Table 16 on page 38 displays some historical shifts in sources of support for colleges and universities.

Table 16 highlights several trends that have affected higher education finance:

- First, the decline in the proportion of income represented by tuition and fees between 1939-40 and 1959-60 reflects, among other things, the migration of enrollments into the public sector -- from 25 percent of the total enrollments during the 1920s to their present proportion of around 78 percent. Despite the decline in its proportion before 1960, tuition has remained remarkably stable as a proportion since then, and has even grown slightly as a proportion of the revenue of public institutions during the last ten years.

- Second, enrollment increases in the public sector are also reflected in the considerable growth of State appropriations as a source of revenue and in the declining role of endowment income, concentrated heavily in private colleges, as a proportion of total income. For example, although the endowment of public institutions rose from $2.2 to $4.2 billion during the 1970s, while that of private institutions grew from $11.6 to $19.3 billion, their value declined markedly when adjusted for inflation.

- Third, the emergence of grants (a portion of "private gifts and grants") as a source of revenue and the sale of educational services indicates the increasing pursuit of research, consulting, and contract education.

- Finally, the decline of the proportion represented by auxiliary services (such as dormitories and cafeterias) indicates that, as a whole, these institutions are serving larger numbers of commuters rather than students who live on or near campus.

How can these distinct clienteles be categorized in terms of their different influences on institutions of higher education? Conceptually, there are three quite distinct "sources" of revenue: donors, users of services, and taxpayers.

TABLE 16 A 60-Year Retrospective on the Sources of Revenues for All Institutions of Higher Education, in Thousands of Dollars

	1919-20	1939-40	1959-60	1979-80
Current Fund Income	$199,922	$715,211	$5,785,537	$58,519,982
Student Tuition and Fees	42,255 21.1%	200,897 28.1%	1,157,482 20.0%	11,930,340 20.4%
Federal Government[1]	12,783 6.4%	38,860 5.4%	1,036,990 17.9%	7,771,727 13.3%
State Government[2]	61,690 30.9%	151,222 21.1%	1,374,476 23.8%	18,378,299 31.4%
Local Governments	N/A	24,392 3.4%	151,715 2.6%	1,587,552 2.7%
Endowment Earnings	26,482 13.2%	71,304 10.0%	206,619 3.6%	1,176,627 2.0%
Private Gifts and Grants[3]	7,584 3.8%	40,543 5.8%	382,569 6.6%	2,808,075 4.7%
Sales and Services of Educational Departments	N/A	N/A	45,423 0.8%	1,239,439 2.0%
Auxiliary Enterprises	26,993 13.5%	143,923 20.1%	1,004,283 17.4%	6,481,458 11.1%
All Other	22,135 11.1%	187,993 26.3%	425,980 7.4%	7,146,465 12.2%

1. Federal funds were provided for veterans' tuition and fees, research and extension at agricultural experiment stations administered by land-grant institutions, sponsored research, and all other direct aid to the institutions.
2. Before 1939, includes revenues from local governments. Through 1959-60, includes federal aid received through state and regional compacts.
3. After 1969-70, private grants also represent nongovernmental revenue for sponsored research and other sponsored programs. This source of revenue has increased considerably over the past 20 years.

Note: Data before 1959-60 are for the 48 states and the District of Columbia. Beginning in 1959-60, data are for the 50 states and the District of Columbia.

Source: N[illegible]ional Center for Education Statistics, various fiscal years.

Donors

This group consists of individuals, usually alumni, and philanthropic organizations which contribute to further the general purposes of the institutions. Their contribution exceeded $5 billion in 1982-83, up by 6.2 percent even during the recession. Sometimes these gifts are restricted to capital outlay ($1.8 billion in 1982-83) or to scholarships, but often they come with few strings attached and can be used for priorities established by trustees and administrators (The Chronicle of Higher Education, May 9, 1984, p. 15). Therefore, this source of revenue helps add to what Martin Kramer calls "the venture capital of higher education," or those resources which permit new directions or experiments (1980, p. 72). He estimates that such resources constituted around 12 percent of the Education and General expenditures of higher education in the late 1970s, but that the proportion was shrinking annually.

Users of Institutional Services

Approximately 30 percent of total revenues for colleges and universities in California are secured directly from individuals and corporations who use institutional services. These funds support activities that, at least indirectly, are designed to serve customers and respond to their needs. Students want effective instruction; sports fans like winning teams; corporations insist that the terms of research contracts be fulfilled; businesses which hire faculty for "contract education" want results. In varying degrees, institutions are directly accountable to these customers.

Taxpayers

Some resources are provided by all of us, as taxpayers. Including state and local appropriations as well as federal student financial aid, this is the single largest source for colleges and universities. The vast majority of these funds, of course, are provided to public institutions.

However, because people as "taxpayers" do not deal directly with these institutions, the relations of postsecondary institutions with these providers are much more complex than with the other two. The relations are further complicated because most public accountability occurs through intermediaries such as elected officials and government control agencies, which have interests of their own.

Even so basic a notion as the kind of relationship a state government should adopt toward the institutions is controversial. Recently, John Millett, Chancellor Emeritus of the Ohio Board of Regents, summarized the different approaches which states have assumed in their relations with higher education (1984, p. 197):

> One approach was to consider the public university as a government corporation, that is, as a body politic and corporate, and to appropriate an operating subsidy to the individual institution or to a system of institutions. A second approach was to consider

> the public university as simply another administrative department of state government and to appropriate support for it in the same way or in the same format as for other government agencies. The third approach, which fell somewhere between the other two, was a modified state appropriation practice that partially recognized the peculiar financial characteristics of public universities.

Clearly, a state government which approaches its institutions as "state owned" will structure its finance system differently than one which considers them independent contractors ready to negotiate over services. Regardless of how it is resolved, the issue about how the public should influence institutions through its elected officials is one of the most critical in higher education finance.

THREE: The Changing Priorities of Governments Profoundly Influence the Finance of Higher Education.

The Role of the States in Financing Higher Education

The states have primary responsibility for education under the U.S. Constitution, and they collectively provide 40 percent of the Education and General Revenues (a narrower measure than current fund income) for all colleges and universities, and almost 60 percent of the revenues for public institutions.

In general, states provide a larger proportion of the budgets for two-year colleges than for other institutions where, nationwide during the 1970s, "funding shifted appreciably from local to State governmental sources" (National Center for Education Statistics, 1984b, p. 64). Some states, especially those in the northeast region, have large numbers of private institutions and provide tax support directly to them. On average, private institutions around the nation receive 5 percent of their revenues from the states through direct appropriations, although they receive none in California. Thus the fiscal condition of state treasuries and the political priorities of legislators and governors have a preponderant influence on higher education.

As with most services, the states have organized their institutions and finance systems quite differently: Some fund single systems which consist of most public postsecondary institutions; some appropriate funds through line items to specific colleges; and some use separate formulas for different kinds of institutions. In the past, most states have assigned a high priority to higher education, both in terms of support for public institutions and aid for private ones to promote diversity, competition, and student choice. But within this support, expansion of the enterprise has usually been the prime value since World War II. State officials were attracted to expansion as a means to promote social mobility and more career education, while the institutions welcomed growth to enhance their prestige and generate more dollars for their activities.

Stabilizing enrollments and a decline in state revenues during the recent recession, however, signaled a downward trend in higher education finance, as institutions became vulnerable to appropriations cuts and large increases in tuition. A survey by the Education Commission of the States documented that substantial cuts were inflicted on higher education in many states (including California). The Education Commission, however, concluded (1983, p. 31):

> First, no single action viewed in isolation would cause concern about the vitality of higher education. It is only when the total of actions is reviewed that the possible impacts on teaching, learning, research, and community service begin to come into focus. Second, actions taken in a single year would not be cause for alarm, but repeated curtailment over time must be viewed as detrimental to higher education.

Howard Bowen, among the most prominent scholars on the economics of higher education, has concluded that the unprecedented increase in real resources for higher education during the era of fiscal expansion of the 1950s and '60s had ended around 1975. He believes that higher education has entered a period where institutions can no longer expect states to increase their budgets in real terms (1980, pp. 67-76).

Although the evidence about decline is ambiguous, Table 17 indicates that public institutions had fewer funds when divided by full-time-equivalent

TABLE 17 Current Funds Expenditures of Public and Independent Institutions, According to Current Dollars, Constant Dollars, and Dollars Divided by Full-Time Equivalent Students, 1970-71 to 1981-82 (Current and Constant Dollars in Thousands)

Kind of Institution and Expenditure	1970-71	1977-78	1979-80	1981-82
PUBLIC				
Current Dollars	$14,996	$30,725	$37,768	$46,219
Constant (1981-82) Dollars	33,863	44,325	46,025	46,219
Current Fund Expenditures Divided by FTE Students	6,837	6,930	7,200[1]	6,816
INDEPENDENT				
Current Dollars	$ 8,379	$15,246	$19,146	$24,120
Constant (1981-82) Dollars	18,921	21,994	23,331	24,120
Current Fund Expenditures Divided by FTE Students	10,602	10,894	11,138[2]	10,801

1. The decade's high for public institutions.
2. The decade's high for independent institutions.

Source: National Center for Education Statistics, 1984b, p. 84.

students in 1981-82 than they did in 1970-71. It also shows that, in terms of expenditures divided by full-time-equivalent students, both public and independent institutions reached a high in 1979-80, from which they have declined by 5.3 percent and 3.0 percent respectively through 1981-82.

In looking ahead, however, there are grounds for believing that the worst of the financing crisis is over. For example, it appears that the erosion in public funds for higher education ended this year, when M. M. Chambers reported data indicating a two-year increase of 16 percent and an 8 percent "real" gain in state appropriations. Despite the narrow focus of these data, they are certainly one important indicator of financing trends.

Another indicator is the renewed and widespread public commitment to investment in education. Partly because of its negative effect on funding for public schools, the "taxpayer's revolt," at least in its devastating form, seems to be past. In the November 1984 elections from Michigan to Hawaii -- and including California, where Howard Jarvis first inspired the "revolt" -- voters defeated a variety of tax limitation measures. Further, higher education has consistently ranked among the more respected institutions in public opinion, and that standing undoubtedly influences political decisions. One recent poll indicated that people placed federal spending on higher education as third in priority, behind only medical research and medical care for the aged. Of those polled, 63.3 percent felt that aid to higher education should be increased (Group Attitudes Corporation, 1984). These factors may influence states to fund higher education more liberally, but the trend toward special incentives and directed appropriations, rather than general increases, will likely become stronger as well.

The Role of the Federal Government in Financing Postsecondary Education

The federal government has been generous to colleges and universities. In fiscal 1981, over $12 billion (or about one-sixth of their total support) flowed to postsecondary institutions from federal sources -- about half for student assistance and half for research and institutional support, primarily from the Department of Defense.

However, the federal government has enjoyed the luxury of periodic intervention to promote what Washington officials perceive as "the national interest," rather than shouldering any continuing responsibility for the basic operations of postsecondary institutions. That is, the federal government has played the role of a "rich uncle" in relation to academic institutions, bestowing much largesse in specific areas. This has often been unfortunate, not because federal policies have been wrong, but because they have usually been short-lived and inconsistent. Often, the states, with a more limited tax base, have been left to carry on initiatives abandoned by the national government.

To illustrate this tendency and show how incentives have changed for the institutuions, four phases of federal activity since World War II can be identified:

Benefits for World War II and Korean War Veterans, 1946-1957: Federal policy was to provide funds for the education of veterans and to promote their integration into the American economy. Weapons research in universities continued as during the war, although on a smaller scale.

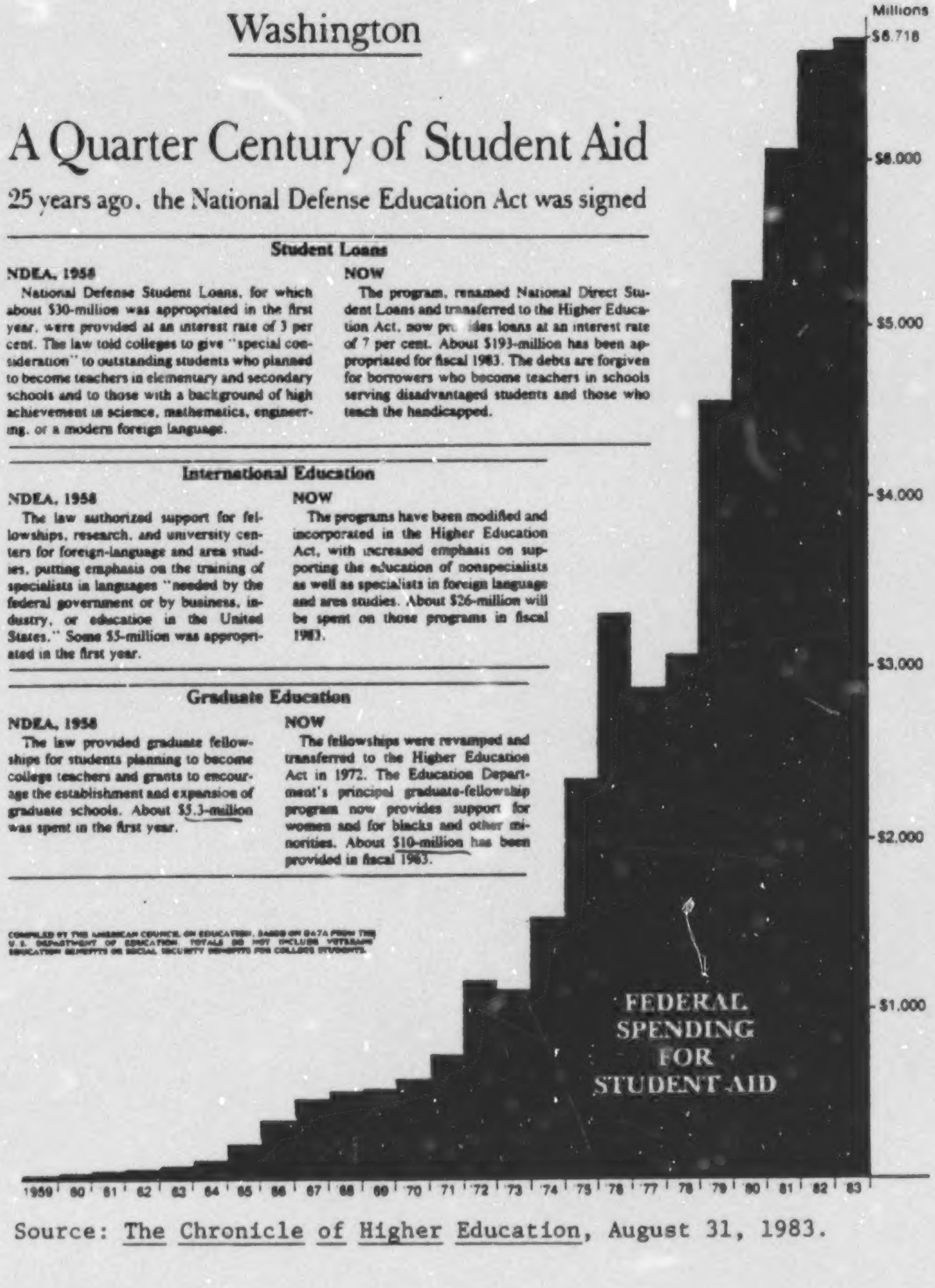
The Reaction to Sputnik, 1958-1966: Federal policy changed to a balance between institutional aid, primarily in the form of research contracts and construction grants, and scholarships to encourage enrollments, especially in graduate school and the health sciences.

Access and Civil Rights, 1967-1980: Federal policy under President Johnson sought to achieve equal educational opportunity through aggressive enforcement of civil rights and later affirmative action to promote the education of the disadvantaged, especially members of racial and ethnic minorities and the disabled. In 1972, as Figure 7 on page 44 shows, Congress itself embarked on a new direction: massive amounts of financial aid to needy students, and much less emphasis on institutional support. In 1978, these grants for financial aid were extended to the middle class, and low-interest loans were extended to everyone. The shift from institutional to student aid was especially evident in the funding of public institutions, which obtained only 13 percent of their revenues from the federal government in 1981-82, compared with 20 percent in 1970-71 (National Center for Education Statistics, 1984b).

The New Federalism, 1981-1984: Federal policy under President Reagan has been to provide aid only to the neediest students and to restrict the federal role in higher education to research and information gathering (although this is still a considerable presence, since the federal government funds an estimated 69 percent of all basic research in the United States, two-thirds of which is conducted on campus). There is also less emphasis on direct intervention to provide opportunities for members of minority groups and for the disabled.

These shifts in policy have profoundly influenced colleges and universities. The large amount of federal funds means that most states have designed their finance systems based in part on these federal funds and national goals. Two prime examples are (1) the end of the federal government's "capitation grants" to medical schools for additional enrollments in the health sciences, which left the states with the unenviable option of replacing federal funds in these expensive programs or cutting back the number of health science students, and (2) the provision of enormous amounts of federal student aid, which caused state officials to worry less during the 1970s about increasing tuition than they would have otherwise. Thus despite the preponderance of state funds and student tuition in financing postsecondary institutions, the federal dollars, shifted among various priorities, have changed the shape of higher education considerably.

FIGURE 7 A Quarter Century of Student Aid, 1959-1983



Washington

A Quarter Century of Student Aid

25 years ago, the National Defense Education Act was signed

Student Loans

NDEA, 1958

National Defense Student Loans, for which about $30-million was appropriated in the first year, were provided at an interest rate of 3 per cent. The law told colleges to give "special consideration" to outstanding students who planned to become teachers in elementary and secondary schools and to those with a background of high achievement in science, mathematics, engineering, or a modern foreign language.

NOW

The program, renamed National Direct Student Loans and transferred to the Higher Education Act, now provides loans at an interest rate of 7 per cent. About $193-million has been appropriated for fiscal 1983. The debts are forgiven for borrowers who become teachers in schools serving disadvantaged students and those who teach the handicapped.

International Education

NDEA, 1958

The law authorized support for fellowships, research, and university centers for foreign-language and area studies, putting emphasis on the training of specialists in languages "needed by the federal government or by business, industry, or education in the United States." Some $5-million was appropriated in the first year.

NOW

The programs have been modified and incorporated in the Higher Education Act, with increased emphasis on supporting the education of nonspecialists as well as specialists in foreign language and area studies. About $26-million will be spent on those programs in fiscal 1983.

Graduate Education

NDEA, 1958

The law provided graduate fellowships for students planning to become college teachers and grants to encourage the establishment and expansion of graduate schools. About $5.3-million was spent in the first year.

NOW

The fellowships were revamped and transferred to the Higher Education Act in 1972. The Education Department's principal graduate-fellowship program now provides support for women and for blacks and other minorities. About $10-million has been provided in fiscal 1983.

COMPILED BY THE AMERICAN COUNCIL ON EDUCATION, BASED ON DATA FROM THE U.S. DEPARTMENT OF EDUCATION. TOTALS DO NOT INCLUDE VETERANS' EDUCATION BENEFITS OR SOCIAL SECURITY BENEFITS FOR COLLEGE STUDENTS.

Source: The Chronicle of Higher Education, August 31, 1983.

FIVE

COLLEGE AND UNIVERSITY FINANCE IN CALIFORNIA

If diversity is the hallmark of postsecondary education in America, the term "abundance" also describes its particular character in California. Some 500 colleges and universities offer degrees of every sort, and in 1982-83, they spent more than $10.5 billion conducting their many activities. Beyond California's colleges and universities, 241 high school or unified school districts offered adult education programs, with enrollments of 1,536,318 and expenditures of $182.3 million. Separate from these programs are another form of postsecondary education -- the 30 Regional Occupational Centers, which had total expenditures of another $78.4 million in 1982-83. Finally, some 1,400 non-degree granting, private schools offer vocational programs, primarily in business, cosmetology, health, and computer education. A recent study of these schools estimated that the value of their plant was $786.2 million and their revenues were $610 million in 1982 (Wilms, 1984, p. 2). Table 18 on the next page presents a statistical overview of the scope of all these segments of California postsecondary education.

Although no comparable measures exist for instruction by non-educational institutions, such as businesses and labor unions, several studies have documented extensive amounts of inservice training there. (California Postsecondary Education Commission, 1978b; Kost, 1980).

SOURCES OF COLLEGE AND UNIVERSITY SUPPORT

Revenues for public and independent institutions come from the federal government, the State of California, consumers (including students), and benefactors.

The Federal Government

As noted in the previous chapter, during the past 20 years, Washington has promoted among its policies access for the disadvantaged, support for research that is in "the national interest," and institutional aid that promotes certain professions or vocational training. The amounts of this aid and the abrupt changes in policy have affected most colleges and universities in California.

In terms of its fiscal commitment to implement these policies now, the federal government's chief contribution comes through student financial aid which, including subsidies for guaranteed student loans, approached $900 million in 1983-84 (Office of the Legislative Analyst, 1984, p. 1949). It is only within the last several years, however, that this priority has become such a part of institutional expectations in California. The 1972 amendments to the Higher Education Act started a dramatic redirection of

TABLE 18 *Enrollments and Expenditures for Educational Institutions Offering Postsecondary Education in California, 1982-83 (The Most Recent Year Available for All Institutions)*

Sector and Segment	Number of Institutions	Enrollment	Total Expenditures (in Thousands of Dollars)	State Appropriations (in Thousands of Dollars)
COLLEGES AND UNIVERSITIES				
Public Institutions				
University of California	9 campuses	139,138 students 129,643 FTE	$4,349,229	$1,125,425
California State University	19 campuses	315,814 students 241,407 FTE	1,486,795	907,338
California Community Colleges	106 colleges	1,363,472 students 650,696 credit ADA 56,037 non-credit ADA	$1,712,999	1,450,158
Other Institutions and State Agencies of Postsecondary Education	See Notes below	c. 2,000 students	136,807	92,182
Independent Institutions				
Accredited Degree-Granting	178	202,887 students	c. 2,300,000	50,799 (See Notes below)
Approved Degree-Granting	66			
Authorized Degree-Granting	181			
OTHER POSTSECONDARY INSTITUTIONS				
Public Institutions				
K-12 Adult Schools	241 districts	1,536,318 enrollments 156,572 ADA	185,348	174,498
Regional Occupational Centers	30 counties	c. 80,000 students 47,196 ADA	80,745	81,603
Proprietary (profit-making)				
Vocational Schools	1,387 surveyed in 1982	467,588 students	c. 291,900 (payroll)	1,499 (See Notes below)

Notes: "State Appropriations" refers in all cases to "State General Funds," except when applied to the California Community Colleges, the K-12 Adult Schools, and the Regional Occupational Programs. There, "State Appropriations" also includes property tax revenues.

"Other Institutions and State Agencies of Postsecondary Education includes the California Postsecondary Education Commission, the California Student Aid Commission, Hastings College of the Law, and the California Maritime Academy.

State appropriations to independent institutions represents the funds to their students from Cal Grant programs A and B, from the California Student Aid Commission.

State appropriations to proprietary schools represents the funds to their students through the Cal Grant C program, from the California Student Aid Commission.

All information is for fiscal year 1982-83, except for Fall 1982 enrollment and the information from the proprietary schools which is for calendar 1982 (survey) and June 1984 (latest reporting).

Sources: California State Department of Finance, no date; Governor's Budget, 1984-85 (this budget displays the actual expenditures for the fiscal year 1982-83); California State Controller, 1984; Council for Private Postsecondary Education, 1984, p. 1; and Wilms, 1984.

federal efforts by placing high priority on direct assistance to students through financial aid rather than institutional grants.

Despite this redirection, the federal government still paid $925.4 million directly to California's colleges and universities in 1982-82, as shown in Table 19. However, in terms of a federal presence in California, the State's average of 10.82 percent of the total federal obligations paid directly to institutions between 1975 and 1982 roughly accords with California's proportion of America's total population and the national economy. This proportion does not appear to show any special recognition of the State's high quality universities and colleges or recognize the larger proportion of students attending postsecondary institutions in this state than most others.

TABLE 19 Federal Funds Paid Directly to All California and American Universities and Colleges, Federal Fiscal Years, 1975 to 1982, in Thousands of Dollars

Year	California	United States	California's Percent of U.S. Total
1975	$529,184	$4,547,191	11.64%
1976	612,517	5,402,764	11.34
1977	718,743	6,489,735	11.08
1978	802,820	7,471,843	10.74
1979	725,481	7,603,908	9.54
1980	893,448	8,298,118	10.77
1981	837,222	7,704,329	10.87
1982	925,408	8,702,380	10.63

Note: This table presents data collected through the National Science Foundation's "Survey of Federal Support to Universities, Colleges, and Selected Nonprofit Institutions." The fiscal year 1982 data were submitted by 15 federal agencies in the form of an estimated 95 percent of total obligations to universities and colleges and virtually all funding for science and engineering research and development. The agencies are as follows: Agency for International Development Commerce, Department of Defense, Department of Transportation, Education, Environmental Protection Agency, Department of Energy, Department of Health and Human Services, Department of Housing and Urban Development, Department of the Interior, Department of Labor, National Aeronautics and Space Administration, Nuclear Regulatory Commission, National Science Foundation, and Department of Agriculture. The funding from the Department of Energy does not include the University of California's nuclear laboratories.

Source: National Science Foundation, 1984b, p. 46.

Out of the $925,408,000 that the federal government paid to California colleges and universities in 1982, $648,089,000 (or 70 percent) went to science and engineering as follows (National Science Foundation, 1984b, p. 98):

Research and development	$627,600
Research and development plant expenditures	2,317
Facilities for instruction	534
Fellowships/traineeships/training grants	32,490
General support for science and engineering	6,619
Other support for science and engineering	14,529

Apart from this institutional aid, the largest expenditure of federal funds to California colleges and universities is the $1.3 billion committed by the U.S. Department of Energy to the University of California nuclear laboratories in 1983-84. Although the University receives a gratuity for this responsibility, the facilities, equipment, and personnel costs of these laboratories are outside its Education and General Expenditures.

Table 20 lists the top ten American universities receiving military research contracts and shows that three California institutions are within the top ten in terms of these projects -- the University of California, Stanford, and the University of Southern California. The trend toward both the sciences, research, and the military for federal expenditures is likely to continue throughout the 1980s.

TABLE 20 The Nation's Top Ten Universities in Terms of Pentagon Contracts

Rank and Institution	Rank in Top 500 of All Recipients of Military Contracts	Fiscal Year 1983 Contracts in Millions of Dollars
1. Massachusetts Institute of Technology	15th	$248
2. John Hopkins University	17th	227
3. Illinois Institute of Technology	51st	42
4. University of California	54th	40
5. Stanford University	67th	26
6. Georgia Institute of Technology	70th	25
7. University of Texas	72nd	23
8. The Pennsylvania State University	77th	20
9. University of Rochester	78th	20
10. University of Southern California	81st	19

Source: The Center for Defense Information, 1984, p. 7.

In addition to these funds, the federal government supports postsecondary education through vocational education grants and through "tax expenditures," but these are more appropriately considered in the following chapter on "other postsecondary institutions."

The State of California

The State has primary responsibility for its tax-supported colleges and universities but also provides financial aid of some $60 million annually to students in independent institutions. Currently it supports virtually all the expenses of the regular instruction and administration of the University of California, the California State University, and the California Community Colleges -- a total State commitment, including property tax revenues, of $3.5 billion in 1982-83 (Table 18). This support, however, [illegible] only for regularly enrolled students pursuing degrees in the University and the State University, since the State does not fund "adult" or "continuing" education or summer sessions in these institutions. Both segments, though, maintain large extension programs and offer continuing education, usually off campus, paid for through student tuition. The State does, however, support many of these activities at the Community Colleges and K-12 Adult Schools.

Article I, Section 8 of the California Constitution prohibits direct State aid to independent institutions by stating that "No public money shall ever be appropriated for the support of any sectarian or denominational school, or any school not under the exclusive control of the officers of the public schools . . . ." This section has often been litigated, but the preponderance of decisions falls strictly against any grants directly to institutions. For example, in 1978, the Third District Court of Appeals declared a grant to Stanford University unconstitutional because it authorized annual payments of $12,000 for each medical student enrolled in a specific program. The Court stated that "the Legislature has tried to do indirectly what it is prohibited by the Constitution from doing directly" -- that is, providing public funds to institutions outside the exclusive control of public school officers.

Does this mean that the State cannot channel any funds to independent institutions? No, but it must do so through other parties:

> It is now accepted law under Bowker [Bowker v. Baker (1946) 73 Cal. App. 2d 653] that a payment of funds in the amount of the tuition for education directly to a student or to a public or private school on behalf of a special student, such as a veteran, who designates the school of his choice, is not unconstitutional, since any benefit to a private school is an "incidental" or "indirect" effect of the direct benefit to the student (Board of Trustees of the Leland Stanford Junior University v. Kenneth Cory, Controller of the State of California (1978) 3 Civil 17100, p. A-6).

Thus, the State's student financial aid programs, which channeled $56.2 million to independent college and proprietary school students in 1983-84, appear to be constitutional so long as they encourage choice among institutions and do not represent even indirect subsidies to specific private institutions (Legislative Analyst, 1984, p. 1949).

Clientele

Students pay a variety of charges to California's colleges and universities -- $1,236,537,000 in tuition, fees, and charges for all educational activities in 1981-82. Some of these charges are required as a condition of admission, while others are imposed only if certain services are used:

Examples of charges required as a condition of enrollment:

- University of California
  - Education Fee
  - Registration Fee
  - Student body fees
  - Specific campus fees
  - Non-resident tuition
- California State University
  - State University Fee
  - Student Services Fee (discontinued in 1985)
  - Instructionally Related Materials Fee
  - Associated Student Body Fee
  - Student Union Fee
  - Health Facilities Fee
  - Non-resident tuition
- California Community Colleges
  - State fee for credit courses
  - Non-resident tuition
  - Community services fees
- Independent Colleges and Universities
  - Tuition (fees that cover the cost of instruction)
  - Fees (charges for specific services provided to all students)

Charges only if certain services are used (usually applied by all institutions), but which have a different incidence on each student based on choice:

- Parking fees
- Health insurance fees
- Cost of transcripts
- Dormitory charges
- Fees for materials and equipment used up during instruction or which result in a tangible product
- Fees for the use of such private facilities as golf courses and bowling alleys
- Child care
- Tickets to sports and cultural events

As a whole, these student charges cover almost 20 percent of the Educational and General Expenditures for all institutions, but they represent over 50 percent of these expenditures in independent institutions. The reason for this difference can be seen in the disparity between required tuition and fees for resident undergraduate students in public institutions, and student charges across a broad range of independent colleges and universities, as shown in Table 21.

TABLE 21 A Comparison of Required Tuition and Fees for Resident Undergraduate Students in Public Institutions with Student Charges in Selected Independent Institutions, Academic Year 1983-84

Category of Institution and Example	Student Charges
PUBLIC INSTITUTIONS	
University of California (average)	$1,387
The California State University (average)	692
California Community Colleges	
High (Riverside Community College)	200
Low (Los Angeles City College and 36 others)	0
Median	44
INDEPENDENT INSTITUTIONS	
Research Universities	
California Institute of Technology	7,560
Claremont Graduate School	6,300
Stanford University	9,027
Comprehensive Universities	
Loyola Marymount University	5,605
Pepperdine University	7,520
University of Santa Clara	5,607
Liberal Arts Institutions	
Harvey Mudd College	8,260
Pitzer College	7,396
Whittier College	6,861
Comprehensive Baccalaureate Institutions	
California Lutheran College	5,010
Chapman College	6,220
Saint Mary's College of California	5,460
Religious Institutions	
California Baptist College	3,010
Holy Names College	5,020
Menlo College	5,970
Specialized Institutions	
Cogswell College	3,600
Golden Gate University	2,550
World (West) University	4,500

Note: This grouping of independent institutions was used in the Commission's 1978 report, State Policy Toward Independent Postsecondary Institutions, which selected three institutions per grouping as representative of the groups.

Source: National Center for Education Statistics, 1984a, pp. 1-2.

Of course, colleges and universities receive payment from many "clientele" besides students, who avail themselves of services ranging from athletic events to research projects. Broadly defined, the payments by consumers appears to have constituted about one-third of the total income of California's colleges and universities in 1981-82 (National Center for Education Statistics, 1984c, Table 1).

Benefactors

The current market value of endowments among all California colleges and universities in 1981-82 was nearly $1.7 billion, with a yield of $131.4 million. Again, public and independent institutions were distinct. According to unpublished data from the National Center for Education Statistics and estimates from other sources, the State's 135 public colleges and universities recorded a year-end market value of $450 million for their endowment (the vast majority being concentrated in the University of California), while privately controlled institutions reported $1.2 billion to the Higher Education General Information Survey -- two and a half times as much. A rapidly growing source for endowments is the corporate world. The National Directory of Corporate Charity lists 620 corporations that contributed $125 million to non-profit organizations in California during 1980. It is reasonable to assume that the institutions of higher education received about one-fourth of that amount, or roughly $31.3 million (Council for Financial Aid to Education, 1984).

As State support has become less certain for public institutions in California during the last six years, they have increasingly used "foundations" -- a legal instrument to collect funds outside the regular budget of the institution. Foundations come in four varieties (those for fund raising, contract education, administration of research and grants, and special purposes for a limited time) but their purpose is generally the same: to raise revenues outside the institution where expenditures are not controlled by regular budget practices.

Although four-year institutions in California have long relied on alumni associations and foundations to raise revenues, the Community Colleges are relative newcomers to the enterprise. According to George Rodda, Jr., chair of the Board of Trustees for the Coast Community College District, "During the 1960's and early 1970's, funding mechanisms dumped money into the community colleges as America's outstanding egalitarian organization." During the late 1970s, however, funds from the traditional sources declined so that "today, if you don't have a foundation, you will not have enough money to fulfill the role of the community college, whatever it is" ("Two-Year Colleges Step Up Pursuit of Private Funds," 1984, p. 1).

EXPENDITURES BY PUBLIC COLLEGES AND UNIVERSITIES

The State's Budget Review Process for the University and State University

The general level of expenditures for the University of California and the California State University are determined through a long "budget review process." Both the University and the State University are considered State institutions and are organized as "systems" of nine and nineteen campuses, respectively, under their single governing boards. Each system, rather than individual campuses, receives funds through a line item in the State's Budget Act which classifies its activities into a dozen major programs, roughly similar to the Program Classification Structure illustrated in Figure 6 on page 35 above.

Eighteen months before each budget year begins, staff from the systemwide offices begin discussions with campus personnel about campus fiscal requirements for maintaining existing programs, expanding them, or adding new ones. The budget process takes two major tracks: (1) the State's review and determination of its appropriations, and (2) decisions about activities that are not funded by the State. After months of preparation, the two systems present their base budgets each October for the current year, calculate "baseline adjustments" by estimating inflation and enrollment changes, and request budget and program "change proposals," which include requests for salary increases. Although these change proposals rarely exceed 15 percent of either segment's total budget, they are important because (1) they usually become part of the system's base budget and may not be reviewed in later years, and (2) they often represent new directions for the institutions and new obligations for the State.

Customarily, the Governor and the Department of Finance reduce these budget and program change proposals substantially and lower the baseline adjustments somewhat. Since the introduction of collective bargaining, the Governor has chosen to identify a certain portion of funds for an "augmentation for employee compensation," and then let bargaining or some other process determine the distribution between salary adjustments and fringe benefits. Except for its override of Governor Jerry Brown's veto in 1979, the Legislature has never increased the initial amount identified by the Governor for employee compensation since the beginning of collective bargaining.

The Governor's Budget is then introduced each January as the "Budget Bill," which winds its way through the legislative process. Although most State funds for the University and the State University are generated by either enrollment-based formulas or by incremental budgeting, categorical aid for special programs represents a significant portion of each segment's total budget. These special programs typically receive the most legislative attention.

Finally, the Budget Bill is adopted by the Legislature in June or July, and signed by the Governor shortly thereafter. California's Governor, however, has line item veto power, and can reduce or eliminate any amount in the Budget Bill before signing it into law. This authority, coupled with the need for a two-thirds vote of the Legislature's entire membership to override a veto, makes the Governor the central figure in the budget process.

What is the effect of this review process on the expenditures of the University and State University? First, it can be said that although most State funds are provided for instruction and are thus based on enrollment formulas (fixed student/faculty ratios) for both segments, the segments enjoy flexibility in distributing these "positions" and the dollars associated with them.

For example, after the State formula defines the resources for the State University at a certain level of projected enrollment based on the level and mode of instruction, the specific allocation is determined through steps internal to the State University itself. Basically, the State provides, on the average, one faculty position for every 17.8 full-time-equivalent students. The authorization to establish these faculty positions is given to the Chancellor of the State University, who then apportions them to the 19 campuses according to the system's own formulas, which is not on a strict 17.8/1 student/faculty ratio. Campus administrators then divide the faculty positions among "Teaching Service Areas" that cluster departments together, again not on a strict student/faculty ratio. At this point, the campuses take into account the mode and level of instruction -- for example, laboratory credit hours generate more faculty positions than do lecture credits; lower-division instruction justifies fewer faculty than do graduate classes. Finally, each department receives its faculty allocation, based on its projected student credit units weighted by the mode and level matrix. At this point, there is little correlation between the State's initial student/faculty ratio and the number of teaching positions in an individual department. In general, the formulas generate the appropriation levels but do not tightly constrain the actual expenditures (Messinger, 1976).

In addition, although the State's Budget Act appropriates dollars to "line items" (typically to instruction, research, academic support, student services, administration, and plant operation), both the University and the State University have considerable flexibility to shift funds between programs and between objects of expenditure (funds for personal services, equipment, etc.). Both systems are exempt from several standard control sections of the Budget Act that regulate most State agencies, and the University's constitutional status exempts it from virtually all other restrictions on State purchasing policies and fiscal controls. Recently, the trend has been to provide additional latitude for the State University. In 1982, the State lifted its controls over most State University purchases and released it from the auspices of the California Fiscal Information System -- an effort to bring it into more conformity with the state's accounting and monitoring policies.

The State's Apportionment Process for the Community Colleges

Before Proposition 13, the finance system for the Community Colleges differed significantly from that of the State's four-year institutions. Having begun as grades 13 and 14 of high schools, the Community Colleges were supported through a statutory formula that matched State funds with local property tax revenues. Within California's 70 Community College districts, each Board of Trustees was authorized to levy a general purpose tax and several "permissive" taxes on the property of the district. The maximum tax rate was the district's general-purpose rate established by statute, adjusted proportionally by any increases in the adult population and by changes in the Consumer Price Index. Under their maximum tax rate, the boards were free to choose their rate and so alter their revenues.

Because wealth varied among the Community College districts, local revenues were unequal. This imbalance led the State to provide apportionments which were designed to equalize the income per student among the districts by distributing more dollars to "poorer" districts than to "wealthy" districts. For example, the State's average apportionment in 1977-78, just before Proposition 13, was $657 per unit of average daily attendance (ADA), but individual apportionments ranged from $125 to $1,592 per ADA. (The use of ADA for Community Colleges is a vestige of their origin within the public school system. Generally, there are two census weeks per term, and enrollment is counted in terms of Weekly Student Contact Hours. These hours are then divided by various formulas to determine total ADA. One unit of ADA roughly equals 17 hours of attendance by one student per week for the academic year.)

The key element of this method of finance was the ability of local taxing authorities, including Community College districts, to set their own tax rates on property within their territory. Proposition 13, however, limited any ad valorem tax on real property to 1 percent of its full cash value and made the Legislature responsible for distributing these revenues. In effect, the "local" property tax had been transformed into a State tax with the focus of authority in Sacramento. Since the State's apportionments were earlier based mostly on the relative ability and willingness of Community College districts to raise local revenues through the property tax, Proposition 13 not only reduced property tax revenues by 60 percent statewide but also destroyed the basis for equitably calculating State apportionments.

Proposition 13 has thus created a hybrid for the Community Colleges: a State-determined finance system that is locally governed. Basically, the State determines almost all of the general revenues for the Community College districts and provides these through general apportionments per units of ADA, with few of the normal budgeting processes used for the four-year institutions. Except for "categorical programs" that assist disadvantaged students and those with disabilities -- and where funds amounting to approximately $45 million statewide are restricted -- district boards receive most State funds as general apportionments. They can shift these apportionments freely among instructional activities, administration, student services, plant operation, and salaries. This flexibility leads to many diverse practices among the colleges which frequently raise questions and irritate those officials in Sacramento who determine the flow of funds to the districts.

This finance system for the Community Colleges contrasts with the State's budget review process and program classification system for the four-year systems which enjoys considerable credibility with legislators. Although the issue of whether resources are adequate is usually present with all public segments, the Community Colleges -- unlike the four-year segments -- are challenged by the dilemma of reconciling local authority over budgets with the State's insistence on controlling and monitoring its appropriations. Recently, the Legislature has mandated a study of "differential funding" from the Community Colleges, in hopes of resolving some of these difficulties.

Not surprisingly, the six years since Proposition 13 have brought a steady stream of changes in Community College finance:

- In 1979, Assembly Bill 8 returned the districts to an ADA-based formula after they received "block grants" regardless of attendance in 1978-79. It contained a strong equalization formula and an "incremental cost" provision that provided somewhat less than each district's average revenues per ADA for enrollment growth and subtracted less than average revenues per ADA for declines. This was designed to lessen the purely fiscal incentives for growth or unwarranted reductions for enrollment losses.

- In 1981, new legislation continued most aspects of AB 8, except that the reimbursement rate for non-credit ADA was reduced, certain kinds of non-credit courses were eliminated from State support, and funding for enrollment increases was "capped" and based on specific projections for each district rather than for the State as a whole. Woven throughout all these changes were special factors designed to apportion more funds to certain kinds of districts: large district aid, small district aid, small college aid, an equalization exemption factor, and additional funds to districts with large numbers of needy students. The thrust of all these changes was to centralize more fiscal decisions in the State capitol.

- In 1983, the latest finance approach was adopted, which terminates in 1987. This legislation based cost-of-living adjustments (COLAs) on the increases in the Implicit Price Deflator for State and Local Government Purchases of Goods and Services. Changing the earlier "squeeze" approach toward equalization, the new legislation equalizes "upward," guaranteeing a certain minimum revenue per ADA to all districts and providing modest increases to districts below the statewide average. No funds are reduced from the budgets because of enrollment declines during the year the drop occurs, but enrollment growth still generates extra funds immediately, at least up to the "enrollment funding cap." The legislation continued the prior policy of providing State funds for noncredit courses only in the nine areas offered by the adult schools.

- Finally, legislation adopted in early 1984 imposed a "first-time ever" State fee of $50 per semester on students enrolling for six units or more. Although the struggle over the fee was bitter, the earlier legislation fostered a concerted effort by the Community Colleges themselves to solve the nagging problems of achieving equalization and funding enrollment changes.

According to Chancellor Gerald Hayward of the Community Colleges, the past decade has witnessed a "roller coaster pattern" because of eight different changes in their finance formula: "The past decade [has] been one of extremes and instability for the Community Colleges. The decade began by Community Colleges receiving a sizable funding increase in SB 6 (1973), followed by accelerated growth, decline, growth, and finally because of budget cuts the past two years, decline" (Assembly, California Legislature, 1984, pp. 1-4). Unfortunately, the hope for an end to this "roller coaster" will likely prove elusive without some solution to the dilemma of a State finance system imposed on locally governed and extremely diverse institutions.

One effort toward a solution -- the search for sources of tax revenues which are not set in Sacramento -- has been disappointing. In San Francisco v. Farrell (32 Cal 3rd 47, 52-53), the California Supreme Court ruled that a local entity could impose a tax, the proceeds of which could be used for general purposes without having to obtain a two-thirds vote of the electorate as specified in Proposition 13 (Article XIIIA of the California Constitution). Despite this, Legislative Counsel opines that this technique is not available to the Community Colleges without legislative action, which seems unlikely. Alternatively, the only source of additional funds from local taxpayers is through the two-thirds approval of voters. While one Community College district and 12 school districts have attempted this, only four of the school districts have succeeded. Judging from the experience since Proposition 13, it appears that a State-determined finance system will be permanent for the Community Colleges.

Annual Expenditures in the Public Segments of Postsecondary Education

Tables 22 through 25 detail the total expenditures of the three public segments in 1982-83 as summarized in Table 18. The different missions of the three public segments are readily apparent in the different proportions of each budget devoted to various activities.

The University of California: Under the Master Plan, the University of California alone conducts State-supported research. As shown in Item 4 of Table 22, the University's "Organized Research" totaled $118 million in 1982-83, of which more than $98.9 million came from State General Funds. In addition, funding from a variety of sources permits the University's teaching loads to be roughly one-half those at the State University, allowing its faculty additional time for research. Although the State provides impressive amounts for research, these funds are overshadowed by the enormous volume of contract and grant monies which are attracted by University teaching and research faculty (Item 13). There is no other state-supported university in America that attracts the same volume of research grants and contracts as does the University of California, although research expenditures per faculty member in 1980-81 were higher in New York, Texas, and Wisconsin (Halstead and McCoy, 1984, p. 45).

The Master Plan also granted exclusive authority to the University to offer doctoral and professional degree education, especially in law and the health sciences, including veterinary medicine. As shown in Items 1B and 3 of Table 22, the University expended almost $830 million in the health sciences, of which two-thirds came from patient charges in its five hospitals. The largest single expenditure in Public Services (Item 5) is for agricultural extension services.

The California State University: With more than 300,000 students, the State University is the largest four-year system of higher education in the nation, and its 19 campuses span the spectrum from urban-commuter campuses to residential rural institutions. Its primary function is to provide instruction to undergraduate and graduate students in the liberal arts and sciences, in applied fields, and in various professions -- especially teaching. It is authorized to grant bachelor's and master's degrees, but doctoral degrees may not be awarded except jointly with other universities. The information

TABLE 22 Total Expenditures, University of California, 1982-83

	Program	Amount		Percent of Budgeted Expenditures
1.	Instruction		$ 760,832,000	31.8%
	A. General Campuses	$476,044,000		
	B. Health Sciences	221,602,000		
	C. Summer Sessions*	8,218,000		
	D. University Extension*	54,968,000		
2.	Academic Support		187,497,000	7.8
	A. Libraries	88,017,000		
	B. Other	99,480,000		
3.	Teaching Hospitals		602,991,000	25.2
4.	Organized Research		118,453,000	5.0
5.	Public Service		61,273,000	2.6
6.	Student Services		107,440,000	4.5
7.	Institutional Support		154,717,000	6.5
8.	Plant Operation and Maintenance		152,746,000	6.4
9.	Student Financial Aid (University sources)		49,742,000	2.1
10.	Auxiliary Enterprises*		162,830,000	6.8
11.	Special Regents' Programs		32,387,000	1.4
12.	TOTAL, BUDGETED PROGRAMS		$2,390,908,000	55.0% of total expenditures
13.	Extramural Programs			
	A. Contracted Services or Restricted Programs		$ 684,990,000	
	B. Department of Energy Laboratories		1,273,331,000	
14.	TOTAL, EXTRAMURAL PROGRAMS		$1,958,321,000	
15.	TOTAL EXPENDITURES		$4,349,229,000	
	Total, Personal Services**		$1,672,483,000	
	Operating Expenses and Equipment		$1,043,105,000	

*Supported through student charges or other fees for services.

**Includes salaries and wages, staff benefits, and estimated salary savings.

Note: Uniform categories in fiscal reporting to the State are not used by the three public segments of higher education. In order to display roughly comparable categories, the segment-specific categories in the official documents have, in some instances, been combined and, in other instances, have been disaggregated in this table.

Source: Adapted from Governor's Budget, 1984-85, p. E-124.

TABLE 23 Total Expenditures, The California State University, 1982-83

Program		Amount	Proportion
1. Instruction		$ 651,683,000	51.8%
A. Regular	$634,531,000		
B. Summer	10,579,000		
C. Extension	6,573,000		
2. Academic Support		116,855,000	9.2
A. Libraries	58,603,000		
B. Other	58,252,000		
3. Public Service		781,000	0.1
4. Student Services		145,931,000	11.6
5. Institutional Support		165,398,000	13.1
6. Physical Plant Operations*		128,643,000	10.2
7. Independent Operations		48,213,000	3.8
8. Auxiliary Organizations		229,300,000	18.2
9. TOTAL EXPENDITURES		$1,257,500,000	100.0%
Total, Personal Services**		$ 981,875,000	
Operating Expenses and Equipment		$ 206,977,000	

*This item is usually included under "Institutional Support" but is separated here to conform to the format of the University of California.

**Includes salaries and wages, staff benefits, and estimated salary savings.

Note: Uniform categories in fiscal reporting to the State are not used by the three public segments of higher education. In order to display roughly comparable categories, the segment-specific categories in the official documents have, in some instances, been combined and, in other instances, have been disaggregated in this table.

Source: Adapted from Governor's Budget, 1984-85, p. E-165.

on Line 1 in Table 23 reflects these patterns: instruction represents 51.8 percent of the State University's total expenditures, while the instructional proportion is considerably lower (31.8 percent) at the University of California. Because the State University does not offer expensive doctoral programs or advanced training in the health sciences, its 1982-83 General Fund expenditures divided by full-time-equivalent students ($3,609) is below the national average for four-year institutions (The California State University, 1984, p. 245). Its proportions of the budget represented by student services (11.6 percent shown on Line 4) appears to be higher than in other comparable institutions, while "administration" (Line 5) and physical plant operations (Line 6), which together represent 23.3 percent, appear to be somewhat below others. The proportion of the State University's budget for personal services (basically salaries and fringe benefits) is far larger than the proportion of the University of California's budget, which includes more operations and equipment funds (see Table 22).

The California Community Colleges: Table 24 displays the Community College expenditures by object, while Table 25 displays these expenditures by general areas. The largest expenditure categories for the Community Colleges are salaries for certificated personnel, which includes primarily instructors and administrators, and for classified personnel, who are typically staff who provides support for the instructional program and other activities of the colleges. As seen in Table 25, the salaries and benefits for classroom instructors alone represent 53 percent of the "Current Expense of Education" -- a proportion related to the fact that State law requires each district to spend at least 50 percent of its expenses for these salaries and benefits. Instruction and instructionally related expenditures (including student services) represent over two-thirds of all expenditures.

Annual Budgeted Funds for Capital Outlay

Unlike the support budget, where the State's four-year and two-year segments differ, the University of California, the California State University, and the California Community Colleges approach the State in the same way for capital outlay funds. All three segments participate in the Capital Outlay Fund for Public Higher Education (COFPHE), which receives annual revenues from the leasing of the State's tidelands to oil companies. In addition, they receive considerable amounts from non-State sources.

The three segments present their requests to the Department of Fiance according to priority categories. The Department and the Governor then decide on those projects to fund in the Governor's Budget, which are forwarded to the Legislature each January. Finally, the Budget Bill is adopted by the Senate and Assembly in June after each project has been discussed and the appropriations are either included, deleted, or altered. As is true for support items, the Governor can still veto capital outlay projects before signing the Budget.

During the past ten years, the segments have relied on several other public sources besides the COPHE fund: the University's 1972 Health Sciences Facilities Construction Bond Act, a local property tax override for Community College projects, State bonds for the Community Colleges in the early 1970s, and self-financing facilities such as dormitories and student union buildings. Over the decade, revenues from these sources have decreased. California

TABLE 24 *Total Expenditures for Support of Current Operations by Object, California Community Colleges, 1982-83*

	Object	Amount	Percent
1.	Certificated Salaries	$ 829,514,010	47.4%
2.	Classified Salaries	371,071,977	21.2
3.	Employee Benefits	213,647,006	12.2
4.	Textbooks and Library Books	2,763,565	0.2
5.	Supplies	55,563,114	3.2
6.	Equipment Replacement	62,505,206	3.6
7.	Other Operating Expenses	185,903,248	10.6
8.	Self-Insurance Fund	13,961,856	0.8
9.	All Other Operating Fund Expenditures*	73,492,757	4.2
10.	TOTAL EXPENDITURES FOR CURRENT OPERATIONS, 1982-83	$1,748,422,739	100.0%

*Includes the Cafeteria Fund, the Child Development Fund, Student Health Fee expenditures, and all other funds expenditures.

Note: Uniform categories in fiscal reporting to the State are not used by the three public segments of higher education. In order to display roughly comparable categories, the segment-specific categories in the official documents have, in some instances, been combined and, in other instances, have been disaggregated in this table.

Source: California State Controller, 1984, pp. XI, 711.

TABLE 25 Total Expenditures for Support of Current Operations by General Area, California Community Colleges, 1981-82

General Area	Amount	Percent
SALARY AND BENEFITS		
Instructional Activity	$ 808,689,692	48.76%
Instructional Related		
Instructional Support/Services	166,410,781	10.03
Counseling and Guidance	53,815,205	3.24
Other Student Services	71,157,492	4.29
Institutional Services*	164,060,700	9.89
Maintenance and Operation of Plant	101,456,871	6.12
Auxiliary Operations	36,448,327	2.20
Other	301,965,898	18.21
TOTAL, Salaries and Benefits	$1,293,638,385	84.54%
OPERATING EXPENSES		
Instructional Activities	$ 44,057,935	2.66
Instructional Related Activities	31,975,931	1.93
All Other Operating Expenses	180,345,978	10.87
TOTAL, Operating Expenses	$ 256,379,844	15.46%
Salaries of Classroom Instructors**	$ 94,412,168	
Current Expense of Education (CEE)**	1,499,342,975	
Salaries/CEE**		52.98%
TOTAL EXPENDITURES FOR CURRENT OPERATIONS, 1981-82	$1,658,418,912	100.0%

*"Institutional Services" is a construct consisting of "Planning and Policy Making," "General Institutional Services," "Community and Ancillary Services," and "Other, Capital Outlay."

**According to Education Code Section 84362(a), the salaries and benefits paid to classroom instructors must exceed 50 percent of each district's current expense of education, as defined in Section 84362(b).

Note: Uniform categories in fiscal reporting to the State are not used by the three public segments of higher education. In order to display roughly comparable categories, the segment-specific categories in the official documents have, in some instances, been combined and have, in other instances, been disaggregated in this table.

Source: California State Controller, 1984, p. 711, and California Community Colleges, 1983.

voters defeated a $150 million Construction Bond Act for the Community Colleges in 1976, and Proposition 13 eliminated a special property tax for capital outlay that each district could levy to provide its portion of construction projects. The University's Health Sciences Bond expenditures declined from a high of $65.6 million in 1973-74 to $.5 million in 1982-83. Finally, the Legislature diverted funds from the tidelands revenues to support the General Fund during the 1981-83 recession, thus limiting state-supported capital outlay even further.

As shown in Figure 8 on the next two pages, the amounts of funds budgeted for capital outlay have been much more erratic than have expenditures for the support of current operations in higher education. This results partly from the changing needs for capital outlay and partly from the varied mix of State and non-state sources. From the State's standpoint, the following highs and lows in budgeted levels for public postsecondary capital outlay over the past eleven years appear most relevant:

Highest budgeted level for all institutions from all sources: $353.3 million in 1973-74

Highest amount of State resources (funds plus bonds): $208.7 million in 1973-74

Highest amount of State funds (excluding bonds): $ 88.3 million in 1977-78

Lowest budgeted level for all institutions from all sources: $115.5 million in 1979-80

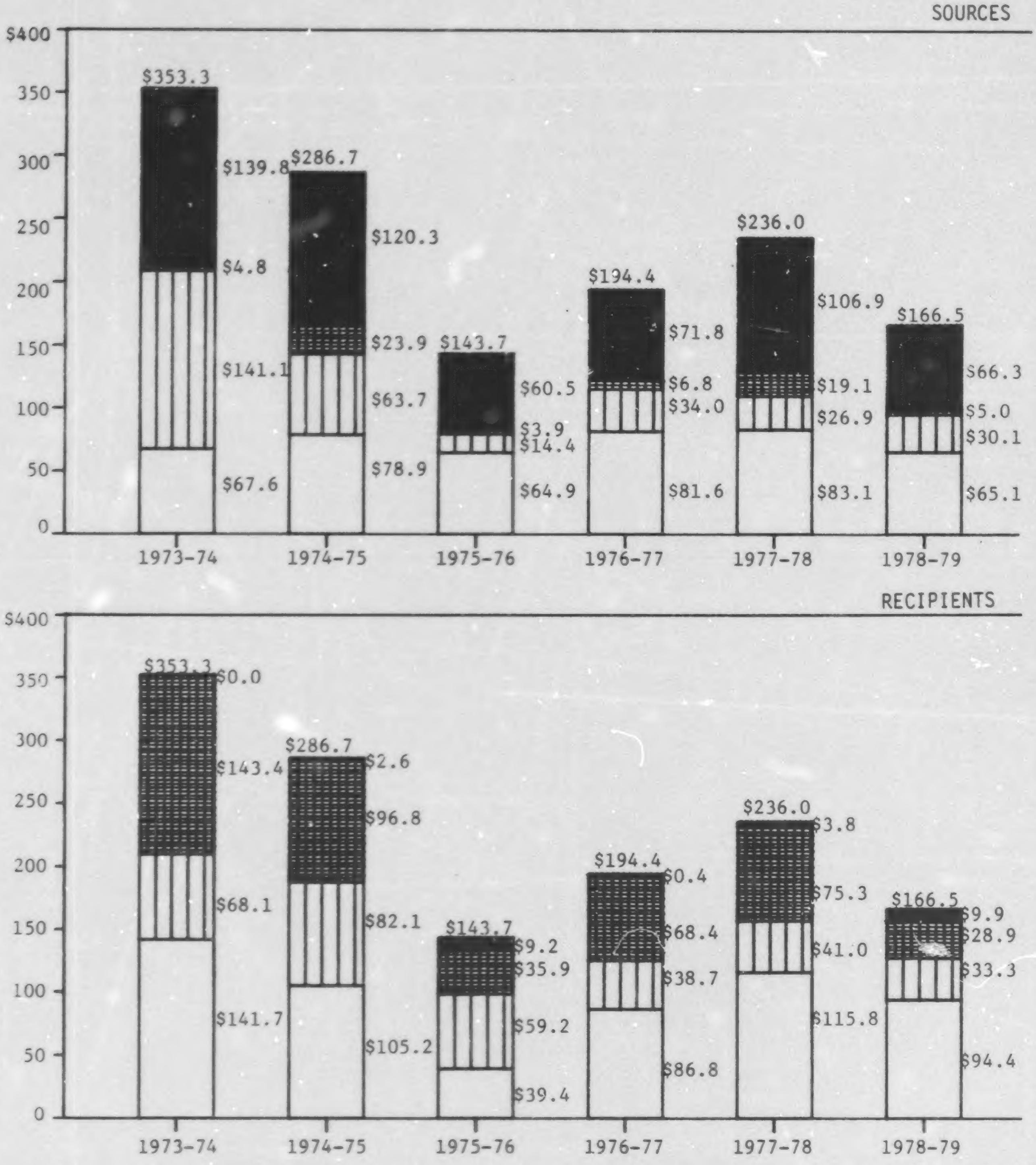
Lowest amount of State resources (funds plus bonds): $ 32.7 million in 1981-82

Lowest amount of State funds (excluding bonds): $ 28.2 million in 1981-82

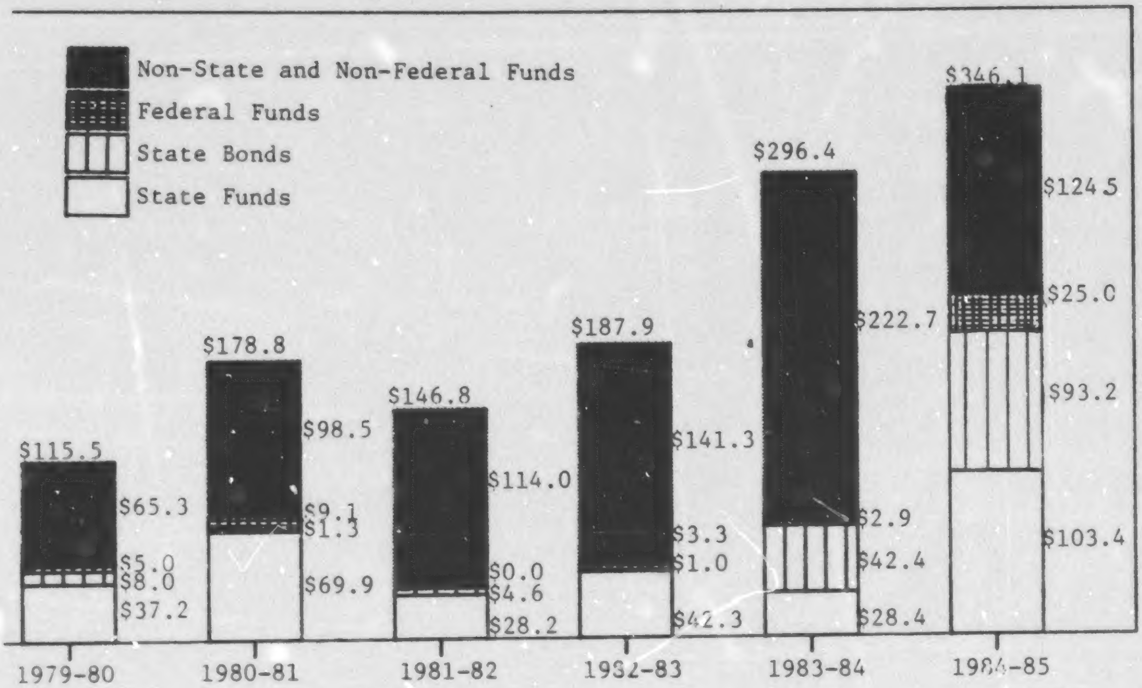
Despite this erratic pattern, both Figures 10 and this summary suggest that the years can be divided into three major phases for State-supported capital outlay funding in all segments: (1) large amounts budgeted in the early 1970s; (2) declining amounts in the late 70s and continuing through the recession of 1981-83; and (3) increased appropriations beginning this year.

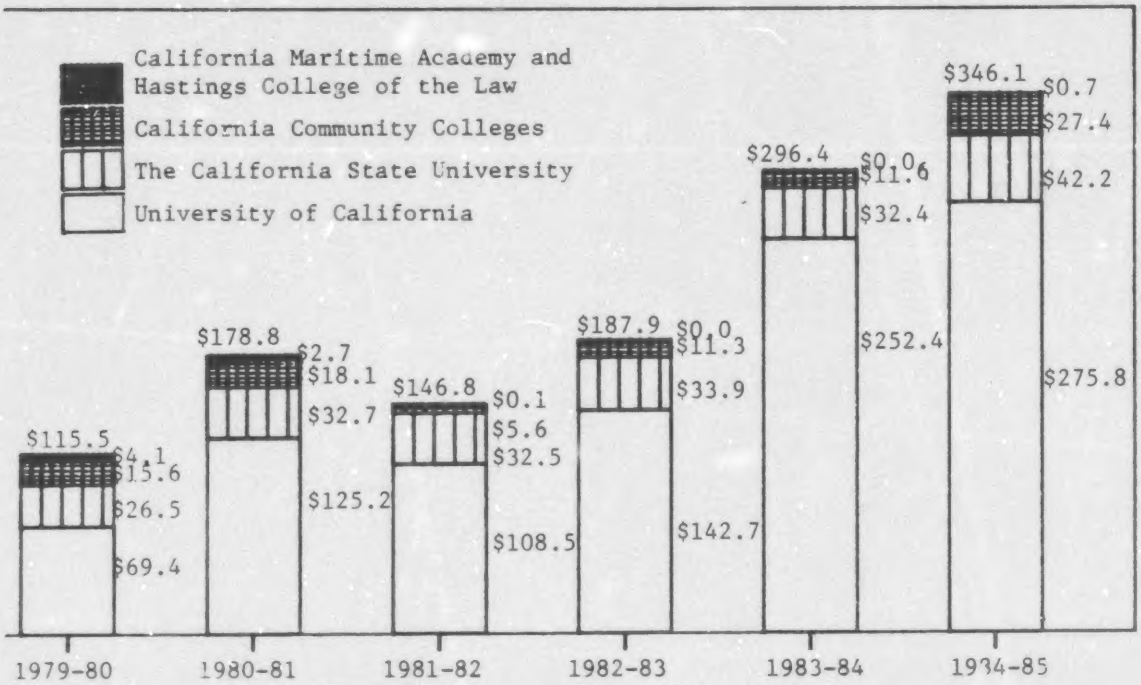
In addition to these changes in the amounts available for capital outlay, the kinds of projects have changed over the past decade. During the early 1970s, most of the funds were committed for major construction -- new buildings, major additions, and large-scale projects. During the years between 1980 and 1983, however, a smaller proportion of State funds were used for new facilities, and more were devoted to remodeling for handicapped persons, renovations, and small projects classed under "minor capital outlay." Now, major facilities have again assumed center stage: the largest item in the 1983-84 budget for the Community Colleges was a new classroom building for the Saddleback District, and 90 percent of the State funds for the University of California involved new construction.

FIGURE 8 *Capital Outlay Funds for the University of California, the California State University, and the California Community Colleges, 1973-74 Through 1983-84*



Source: Governors' Budgets.


Non-State and Non-Federal Funds
Federal Funds
State Bonds
State Funds
$115.5
$65.3
$5.0
$8.0
$37.2
$178.8
$98.5
$9.1
$1.3
$69.9
$146.8
$114.0
$0.0
$4.6
$28.2
$187.9
$141.3
$3.3
$1.0
$42.3
$296.4
$222.7
$2.9
$42.4
$28.4
$346.1
$124.5
$25.0
$93.2
$103.4
1979-80
1980-81
1981-82
1982-83
1983-84
1984-85


California Maritime Academy and Hastings College of the Law
California Community Colleges
The California State University
University of California
$115.5
$4.1
$15.6
$26.5
$69.4
$178.8
$2.7
$18.1
$32.7
$125.2
$146.8
$0.1
$5.6
$32.5
$108.5
$187.9
$0.0
$11.3
$33.9
$142.7
$296.4
$0.0
$11.6
$32.4
$252.4
$346.1
$0.7
$27.4
$42.2
$275.8
1979-80
1980-81
1981-82
1982-83
1983-84
1984-85

Despite recent declines in State support for capital outlay, California's institutions have been fortunate in the "pay as you go" policy adopted by the State for much of its construction, primarily supported by the tidelands oil revenues. In most states, facilities are supported through bonds or tuition charges for capital outlay, not appropriations from the General Fund. Nonetheless, both California's increasing needs in this area and the long-term depletion of oil in its tidelands suggest that its institutions must look to new sources to support capital outlay. This trend is evident in the State's adoption of three pieces of legislation:

> The High Technology Education Revenue Bond Fund, SB 1067 (1983)
> The Libraries and Related Facilities Bond Fund, SB 1905 (1984)
> Revenue Bonds for High Technology and Related Fields, SB 1504 (1984)

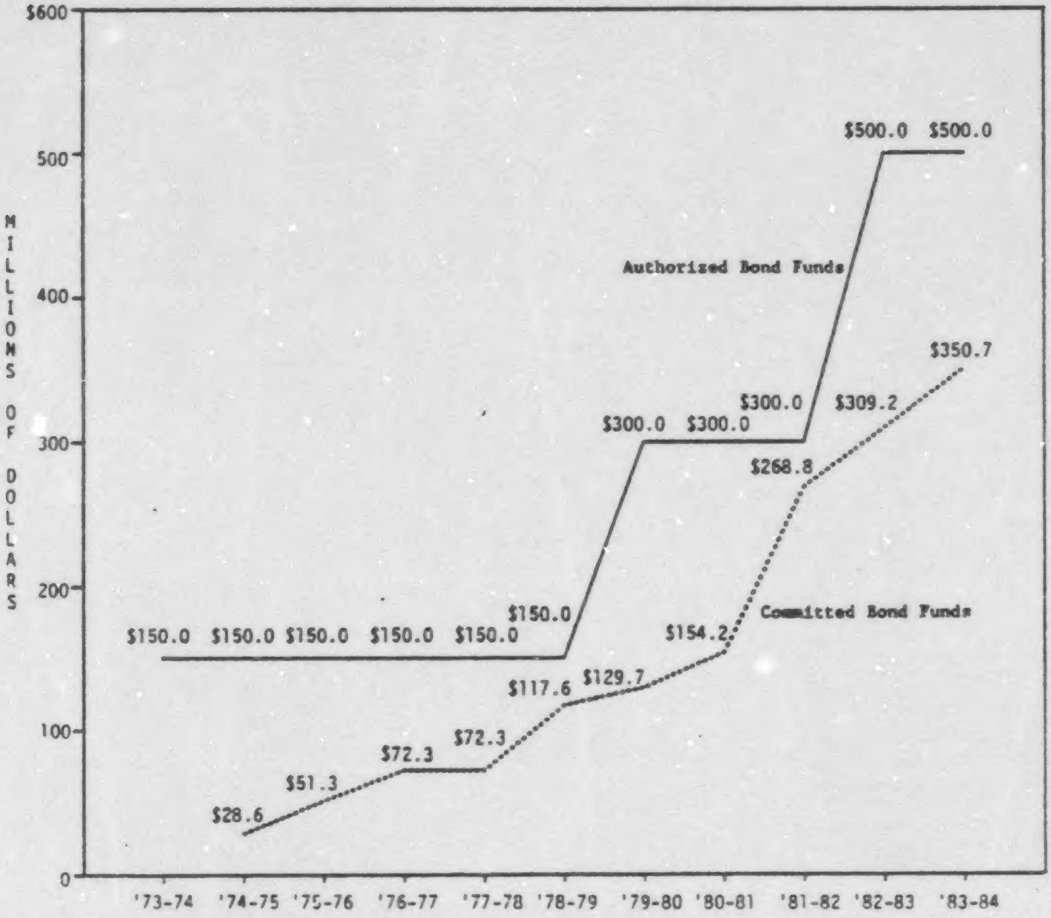
All three bills authorize the sale of State bonds after new facility projects have been approved by the State, with the bonds to be repaid by the institutions themselves. Such a trend is congruent with the emergence of "creative financing" among public organizations. A recent publication by the Municipal Finance Officers Association describes the trend as follows (Peterson and Hough, 1983, p. 3):

> Many of the new techniques . . . have historical antecedents in the taxable-security capital markets, but typically had not been put to use in financing public capital expenditures. In other cases, the creativity comes in devising a new set of relationships that combines the unique tax-exemption features (and lower borrowing costs) of state and local obligations with other elements of economic return that are typically associated with private ownership of assets . . . .
>
> Creative financing techniques have altered the traditional relationships. They have dealt with rearranging the standard borrowing transaction in one or more of the following four ways:
>
> -- shifting interest-rate risk from investor to borrower [through variable rates];
>
> -- enhancing the creditworthiness of borrowers by shifting credit-related risks to third parties [such as insurance companies or governments];
>
> -- increasing the types of returns available to investors beyond those available from the regular receipt of interest income payments [such as through zero coupon bonds or leasing arrangements which transfer tax advantages through depreciation to investor groups [such as bond mutual funds].

Although institutions of higher education have not proceeded as far in "creatively financing" their facilities as have many local governments, it appears safe to predict that they will explore several of these avenues if traditional sources fail to meet their needs.

Independent institutions have been assisted with capital outlay projects by the California Educational Facilities Authority, which was established in March 1973 to issue revenue bonds for nonsectarian education facilities. Through sale of its tax-exempt instruments, the Authority provides lower-cost financing to these institutions than they could secure otherwise. This is a trust activity, however, that involves no direct State expenditures, and all expenses must be paid from revenues and other money available to the Authority. The history of these bond funds is displayed in Figure 9.

FIGURE 9 California Educational Facilities Authority Bond Funds for Independent Institutions, 1973-74 to 1983-84, in Millions of Dollars



Source: Governor's Budgets, cited in California Postsecondary Education Commission, 1984b, p. 36.

Annual Expenditures of Independent Colleges and Universities

The Commission has encountered considerable difficulty in obtaining any reasonably current revenue or expenditure data from the independent colleges and universities in California. During the 1970s, the Commission published two reports on the financial condition of these institutions, which were based on extensive data collected especially for these reports by John Minter and Associates. These data and information from the Higher Education General Information Survey provide fiscal data from Fiscal 1976 through 1981, but the Commission considers this information insufficiently current to be appropriate for presentation here. Data from the Commission's current study on the financial condition of independent institutions, when available in final form, may be included in the policy paper that will stem from the Commission's "Prospectus" project.

SIX

CALIFORNIA POSTSECONDARY FINANCE BEYOND COLLEGES AND UNIVERSITIES

The financing of postsecondary opportunities outside colleges and universities has rarely received much attention in government circles. Recently, however, State officials have had more interest in adult education and lifelong learning, partly because of the growing student demand for opportunities there, and partly because some institutions facing retrenchment are aggressively seeking new clienteles (Millard, 1980, p. 26). Although not ideal, the term "adult education" is perhaps the best single phrase to describe most of the learning outside regular instruction in colleges and universities.

DEFINITION AND EXAMPLES OF ADULT EDUCATION

Since anyone over 18 is legally an adult, the term "adult education" needs to be distinguished from other postsecondary efforts. Grover Andrews defines it as instruction designed to meet the unique needs of persons who have either completed or interrupted their formal education and whose primary occupation is not being a student (1980, p. 110). When the field of "adult education" was emerging fifty years ago, it was justified as promoting "the enlargement of the personality and the quickening of life" through remedial, occupational, liberal, relational, and political education (Bryson, 1936, p. 17). Much of that holds for today, but most contemporary definitions stress that "adult education" is aimed at those individuals beyond the age when most students attend college and at those who are enrolled part time -- thus excluding many re-entry students and those in "recurrent education" who pursue degrees full time.

As shown in Table 26, adult education can be divided into avocational, intellectual, and occupational categories.

ADULT EDUCATION OFFERED BY PUBLIC INSTITUTIONS

Among tax-supported institutions, adult education as defined above is offered at public expense only in the California Community Colleges, the Adult Schools, and Regional Occupational Centers. Nevertheless, through their tuition-supported "extension" programs, the University and the State University annually enroll more than 40,000 students, primarily in continuing and avocational education.

Among the 70 Community College districts, adult education cannot be neatly seperated from other programs. However, some results from the Course Classi-

TABLE 26 Varieties of Adult Education

AVOCATIONAL

Areas of Interest:

Physical
Social
Artistic/aesthetic

Kinds of Courses:

Recreational
Physical education
Music and theater
Textiles, clothing, and jewelry as a hobby
Culinary arts
Foods and nutrition
General interest
Self-awareness
Spiritual
Personal financial management
Languages for travel abroad

Purposes and Practices:

Enhance cultural and leisure activities
Little need for credits, credentials, or degrees

INTELLECTUAL

Kinds of Courses:

Language and civic training
Basic skills

Purposes and Practices:

Education to promote equality and opportunity
Provide another chance for those by-passed earlier
Compensate for prior disadvantages
Assist individuals to enter the workforce
Facilitate social mobility
Provide the basic language and mathematical skills necessary to survive in America

OCCUPATIONAL

Areas of Interest:

Entry-level training
Retraining for displaced workers
Continuing education

Kinds of Courses:

Learning minimum skills for various jobs
Using existing skills in other occupations
Recognizing business opportunities
How to use computers in business and industry
Effective management techniques
Improved written or oral communication
Labor/management relations
Improved teaching

Purposes and Practices:

Become more employable
Continue professional education
Develop personal and management skills
Adapt to technological change in one's occupation
Retrain quickly those workers whose jobs have been eliminated permanently through technological change
Intellectual stimulation
Enhance creativity

Source: Adapted from Pickens, 1983, pp. 2-3.

fication System, recently implemented by the Chancellor's Office, suggest that it represents an increasingly large share of enrollment, perhaps more than one-third. A study conducted by the Commission of remedial education offered in 1980-81 identified 18,799 Community College sections of courses in English and in remedial reading and writing, with a total enrollment of 211,845 students or 45.1 percent of all English enrollments. In addition, sections in English as a second language numbered 2,373 with an enrollment of 58,934, numbers which have likely increased since that time (California Postsecondary Education Commission, 1983, pp. 80, 88-89). Through these courses, the Community Colleges make an important contribution to the field of adult education.

California's Adult Schools, established in 241 unified and high school districts, are a distinct administrative unit of these districts. Their purpose is to improve literacy skills, employability, parenting abilities, and meet the special needs of individuals such as the handicapped, older persons, and non- and limited-English speaking adults. In 1981-82, more than 1.5 million enrollments occurred in these classes, which included 624,359 in Adult Basic Education, 254,164 in vocational training, 105,510 in programs for older adults, and 105,048 for handicapped adults (Governor's Budget for 1984-85, p. E-7).

Regional Occupational Centers and Programs provide vocational training to high school pupils and adults. Of the 67 in 1981-82 which enrolled 91,456 students, 41 were operated by county superintendents of schools and 26 by districts, mostly through joint powers agreements. Courses cover a wide range of job-related training and are conducted in facilities on high school sites, in the centers themselves, or in cooperating businesses (Office of the Legislative Analyst, 1984, p. 1542).

CHANGES IN STATE FUNDING FOR ADULT EDUCATION SINCE PROPOSITION 13

Since Proposition 13 and State reductions in the early 1980s, the Community Colleges and the Adult Schools cannot receive State support for avocational courses in the strict sense. Most districts, however, fund these activities by charging tuition and some have expanded their programs considerably. In terms of State-supported offerings, the districts have concentrated on basic skills courses and vocational programs, of which the Community Colleges offer both kinds for credit and non-credit.

Before 1978, the Adult Schools offered a wide range of courses in all three categories of adult education. Since then, State support for the Adult Schools (and, since 1981, for Community College non-credit programs) has been limited to programs in elementary and secondary basic skills, English as a second language, citizenship, adult training for substantially handicapped persons, apprentice training, vocational training with high employment potential, survival skills in older adults, and parenting.

As shown in Table 27, these restrictions had a major impact on enrollment, especially in 1978 when the budgets of Adult Schools were cut severely. During that year, their enrollment declined by 71,875 average daily attendance or by one-third -- a loss which they have never regained. Table 27 also indicates that their enrollment has not even returned to its level in 1974-75, even though it has grown slightly since 1978-79 -- an increase of 9,503 ADA through 1982-83, or 6.5 percent. In contrast, the growth of average daily attendance in Regional Occupational Centers and Programs has been steady since 1973 with only a slight interruption during the year after Proposition 13.

Table 28 shows the income and expenditures for California's Adult Schools between 1980-81 and 1982-83, the only years available for reliable statewide data. The small change in income during the last two years reflects the State's decision to eliminate cost-of-living adjustments for the public schools in the 1983 Budget Act. At the same time, federal revenues under the Reagan administration declined from $13.4 to $11.7 million. Although salaries and benefits increased slightly in fiscal 1983, the expenditures for books, supplies, and equipment were reduced by $2.2 million, or by 17 percent. This pattern is common during periods of retrenchment.

TABLE 27 Enrollment in California's Adult Schools and Regional Occupational Programs, 1973-74 Through 1982-83

Year	Adult Schools	Regional Occupation Programs	Total	Annual Increase
1973-74	136,559	2,791	139,350	
1974-75	182,614	8,102	190,716	+36.9%
1975-76	197,091	12,438	209,529	+ 9.9
1976-77	216,852	22,277	239,129	+14.1
1977-78	218,944	35,137	254,081	+ 6.3
1978-79	147,069	33,220	180,289	-30.0
1979-80	151,430	38,956	190,386	+ 5.6
1980-81	171,054*	*	171,054	-10.3
1981-82	190,111*	*	190,111	+11.1
1982-83	156,572	47,196	203,768	+ 7.2

Ten-year increase in Adult School enrollment = 14.7 percent.

Ten-year increase in Regional Occupational Program enrollment = 1,591.0 percent.

*The enrollment in Regional Occupational Programs was combined with those from the Adult Schools during these two years, thus making separate analysis impossible.

Source: Staff of the State Department of Education.

TABLE 28 Income and Expenditures of California's Adult Schools, 1980-81 Through 1982-83

Category	1980-81	1981-82	1982-83
INCOME			
Federal	$ 10,356,113	$ 13,466,630	$ 11,680,507
Federal and State	472,828	--	598
State	147,779,210	158,053,544	158,767,384
County	582,954	928,161	521,266
Local	10,049,088	14,365,966	15,731,985
TOTAL INCOME	$169,240,193	$186,814,301	$186,701,740
EXPENDITURES			
Certificated Salaries	$ 88,540,419	$ 98,768,058	$100,854,495
Classified Salaries	20,664,842	26,065,407	26,405,883
Employee Benefits	17,487,207	19,208,371	21,361,100
Books, Supplies, and Equipment	11,167,458	13,085,984	10,868,505
Contracts and Others	14,801,979	25,170,388	26,858,021
TOTAL EXPENDITURES	$152,661,905	$182,298,208	$185,348,004

Source: California State Department of Education, and California State Controller Fiscal Transactions Reports for 1980-81, 1981-82, and 1982-83.

While the State of California's major contribution to adult education occurs in its general apportionments to the Community Colleges and the Adult Schools, it also appropriates $2.5 million of Occupational Training Grants (Cal Grant "C") each year to assist students with the cost of their education. In addition, a wide variety of education programs for immediate employment are administered by the Employment Development Department, usually in conjunction with private employers and educational institutions.

Over the years, State officials have been frustrated by the apparent lack of results from both the federal vocational programs and the slow response of traditional occupational programs to the changing needs in the labor market. As a result, the Legislature has established several programs with tight restrictions, all with the goal of tailoring training programs to the needs of private enterprise. Table 29 describes some of these State programs.

TABLE 29 California State Programs to Encourage Vocational Education

Program and State Funding	Year Established	Services	Priorities
California Worksite Education and Training Act	1975	Employer-sponsored vocational education which combines classroom instruction with on-site training.	Workers with obsolete skills or those unemployed who are selected by business.
Employment Training Panel ($220 million over four years from Unemployment Insurance Fund)	1982	Match the needs of business for skilled workers with those whose jobs are obsolete.	Retraining, not entry level.
Family Economic Security Act (funding is scattered but is linked to the Job Training and Partnership Act)	1982	Implement various facets of the federal Job Training and Partnership Program.	Youth, and displaced workers.

Source: "Employment and Training Programs for the 80s," 1983, pp. 8-10.

FEDERAL SUPPORT FOR ADULT EDUCATION

Vocational Education and Retraining

The major source of direct support from the federal government is through programs in the Job Training and Partnership Act, which was signed by President Reagan in October 1982 to replace the Comprehensive Employment and Training Act (CETA). The chief features of the Job Training and Partnership Act are as follows:

- An emphasis on training and placement in unsubsidized jobs, as opposed to income support and public job creation;
- A locally based program to serve welfare clients and disadvantaged youth;
- Vocational educational linkages, private sector programs for older workers, and labor market information;
- Retraining for displaced workers which can be state or locally administered, or some combination, at the state's discretion;
- A heavy emphasis on spending most of the funds for training, backed by specific limits on the portion of local funds that can be used for administrative expenses, wages, supportive services, and trainee allowances;

- A major shift to the state-level of functions previously performed by the U.S. Department of Labor -- local plan approval, fiscal oversight, and program performance activities;

- A range of options for local public and private leaders to decide how to plan and manage the local employment and training system; and

- The establishment and enforcement of performance standards rather than CETA's policy of measuring compliance to the process ("Employment and Training Programs for the 80s," 1983, p. 3).

The major expenditures in California under the Job Training and Partnership Act in 1982-83 were for delivery system and training services for economically disadvantaged youth and adults ($201.7 million), summer youth programs ($74.4 million), and retraining for displaced workers ($18.2 million) -- for a total of $294.3 million. In addition, the federal government provided $40 million to the Adult Schools for short-term vocational programs and $8.0 million to the Community Colleges for vocational education (Office of the Legislative Analyst, 1984).

"Tax Expenditures" for Continuing Education

The largest indirect source of federal support for adult education comes through "tax expenditures" or deductions by corporations and individuals from their taxable income. These expenditures totaled $1.15 billion in 1980, of which an estimated 90 percent was from the federal government. Using California's average of the nation's postsecondary enrollment, it is reasonable to assume that some $100 million worth of tax benefits accrued to Californians as a result of these policies in 1980 (Organization for Economic Cooperation and Development, 1983, p. 13).

Basically, these tax expenditures occur when organizations or individuals can deduct educational expenses from their gross income. Although in some ways generous, the tax policies of the federal government and of most states are, at best, confused in this area and, in some cases, downright perverse. For example, one rule is that costs incurred in pursuing a college degree or in changing careers are not deductible, while expenses for upgrading skills on the job are. The following hypothetical example indicates how these incentives are misaligned:

- A college teacher can deduct all expenses for a Ph.D. degree in his or her current field (tuition, photocopying, travel, and meals while away on research), if the degree is not required for the position; but a "full-time" graduate student receives no such deduction.

- These same costs cannot be deducted if the college teacher is changing fields, such as by attending engineering school at night.

Thus, tax policies for education not only reward those employed already, but they also discourage mobility within a labor system that desperately needs to promote occupational change among economic sectors.

STATE POLICIES FOR ADULT EDUCATION

The State of California has never followed a consistent policy toward adult education across all sectors of postsecondary education. The 1960 Master Plan for Higher Education devoted extensive attention to students regularly enrolled in colleges and universities and only a short chapter to the others. "The various segments of higher education have used terms such as extension, extended-day, part-time, adult, evening classes, and continuing education," the Master Plan Survey Team stated, and went on to recommend only that "the existing State Advisory Committee on Adult Education be responsible to the coordinating agency and continue the responsibility delegated to it . . ." (p. 144). The plan was silent beyond this with regard to adult education, except for the following (pp. 144-145):

> In the long-range plans for providing opportunities in higher education to the people of California provision for adequate State support of adult education services be assured. However, in this determination of what the State should support, effort be made to differentiate between those enrollees who are pursuing a stated, planned program with definite occupational or liberal education objectives and those who are enrolling in single courses for which matriculation or prerequisites are absent.

Of course, this has been a difficult distinction to implement through the State's Budget. One early effort was to fund the Adult Schools and Community Colleges less for "defined adults" -- those students enrolled for less than 10 units who were over 21 years of age. This distinction vanished in the finance legislation after Proposition 13.

The Legislature's Joint Committee to Review the Master Plan in 1973 paid considerable attention to adult education and recommended a feasibility study for the creation of a fourth public segment with exclusive jurisdiction in this area. Presumably, this new segment might have assumed responsibility for most extension and continuing education programs in the University and State University as well as for the "adult education" activities in the Community Colleges and Adult Schools, but the Legislature never followed this recommendation.

State policy continues to be pluralistic and vague about the issue of which institutions should be responsible for adult education and how it should be financed. Actual practice indicates that the State's policy differs with respect to the four kinds of adult education identified in Table 30.

Most states, including California, distinguish between the "regular" curriculum offered for matriculated students in their public institutions and "adult" or "continuing" education. Of course, the former receives the lion's share of public funding. Additionally, most states distinguish between credit and non-credit courses or between degree and non-degree instruction as the test for public support. California does provide State support for certain kinds of non-credit instruction at the Community Colleges.

TABLE 30 Different State Policies for the Different Kinds of Adult Education

Kind of Adult Education	Characteristics of Students	Segment Involved and Source of Support
Continuing Education	Usually professionals or those already employed.	University and State University Extension; Community College Community Services. Supported primarily by tuition.
Avocational	Middle income relatively well-educated.	Tuition payments by students in the University, State University, Community Colleges, and Adult Schools.
Basic Intellectual Skills/Citizenship	Disadvantaged students in terms of educational or socio-economic status; refugees and those without U.S. citizenship.	Community Colleges and Adult Schools. State-supported.
Short-Term-Vocational Education	Entry-level workers or displaced workers; job changers.	Community Colleges and Adult Schools. State-supported, although the courses have required considerable fees for equipment and materials.

Source: California Postsecondary Education Commission staff analysis.

As described in the Commission's background paper on "Social and Economic Trends: 1985-2000," the enormous number of post-war "baby-boom" Americans have moved through the traditional age of full-time college attendance and are now employed in an economy that requires flexibility in occupational skills and career decisions. As a result, the traditional distinction between "regular" and "adult" students with its fiscal consequences for public support has become increasingly difficult to sustain as sound public policy.

SEVEN

SIGNIFICANT TRENDS IN FINANCING THE CURRENT OPERATIONS OF HIGHER EDUCATION IN CALIFORNIA

A large number of educational institutions in California annually produce considerable quantities of information on their financing. Unfortunately, much of this information is either not comparable among the institutions, inconsistently reported over time, or appears in a format not useful for policy analysis.

From a state-level perspective, two analytical devices are most commonly used to remedy these defects. The first of these is *trend analysis*, the isolation of certain statistics and tracking of their changes over time. The classic example of this approach was a report in *Change Magazine* entitled "The Financial State of Higher Education" -- an ambitious study in 1976 which constructed 224 indicators for a sample of 55 institutions around the nation, including enrollment trends, changes in educational and general expenditures, freshmen full-time-equivalent students to total undergraduate full-time-equivalent students, descriptions of institutional programs and offerings, and tuition and fees compared to student aid revenues (Lupton, Augenblick, and Heyison, 1976). Following many of the same approaches used by "technical analysts" in the stock market, trend analysis in higher education attempts to discern certain regularities over time, offer hypotheses on causes, and project trends into the future.

The second device is *ratio analysis*, which involves comparing one set of figures with another and expressing their ratio as a ratio or a percentage (Lane, 1984, p. 6). College administrators frequently use this approach in order to determine the fiscal "health" of their institutions. Typical ratios include:

Instructional Expenditures/Total Expenditures
Total Revenue Minus Expenditures/Total Revenue
Tuition and Fee Revenues as a Percent of Total Revenues
Expendable Fund Balances/Long-Term Debt
Expendable Fund Balances/Total Expenditures

Over the years, a dozen or so ratios have become common and certain ranges have come to be regarded as "safe" for college operations (Minter, 1979b; Brubaker, 1980). Barbara Taylor describes some practical uses of ratio analysis as follows (1984, p. 10):

> efforts to create objective indicators reflect a desire to monitor measurable changes in financial condition and to maintain financial strength through the effective use of available resources. Moreover, because indicator values for individual institutions can be useful devices for monitoring the condition of *comparable institutions* . . . . No single approach or indicator will reflect financial condition perfectly. [Nevertheless,] a growing dependence on tuition income or an increasing proportion of total expenditures devoted to debt service should alert the institution to the possibility of future financial difficulty.

Despite their acceptance by institutional researchers, sophisticated techniques of trend and ratio analysis have not been well developed for state-level policy analysis, even though most states do attempt some aggregate comparisons both among their own institutions and with those elsewhere. Such an investigation is difficult in that the analysis must be comprehensive and yet sensitive to major differences between institutions; it should also be policy-oriented rather than directed at management; and it should be based on information that is often difficult to develop from institutional sources alone.

The Commission has investigated a number of approaches and compiled fiscal data from a variety of perspectives into the following nine displays. It presents these data in two categories: (1) "macro statistics" about general levels of funding, and (2) "micro indexes" about particular aspects of finance within higher education. In order to be most useful, each of these items attempts to answer only one important question, as follows:

Display	Question to be Answered
MACRO STATISTICS FOR HIGHER EDUCATION IN CALIFORNIA	
1. Portion of Total Income Represented by Various Income Sources for Public and Non-Public Colleges and Universities in California	What important shifts in the major sources of income have occurred?
2. Percent Change in Total Education and General Revenues per Full-Time-Equivalent Student and in Faculty Salaries	How have the resources for certain common units, such as full-time equivalent students and faculty salaries, changed over time?
3. The California Higher Education Proportion Index	How has the State's fiscal commitment to the three public segments changed over time?
MICRO INDEXES FOR HIGHER EDUCATION IN CALIFORNIA	
4. The State Support Index	How has State support of the three public segments changed in relation to their total expenditures?
5. The Instructional Support Index	How have expenditures for instruction changed as a proportion of total expenditures within each segment?
6. The Institutional Support Services Index	How have expenditures for general administrative services changed as a proportion of total expenditures within each segment?

7. The Student Charges Index	How have student charges changed over the years, compared to total expenditures within each segment?
8. The Resident Student Charges Index	How have the major statewide fees charged to resident students changed over the years, compared to the segments' State General Funds?
9. The State-Funded Student Financial Aid Index	How has State support for direct financial aid to students changed, compared to State support for the three public segments?

Clearly, there are other ways of identifying and measuring trends in the financing of higher education that may be just as valid and perhaps even more accurate over time. Nevertheless, the Commission is attempting to establish a set of general trend indicators that can be tracked annually to reveal important changes in the aggregate financing of higher education.

MACRO STATISTICS FOR HIGHER EDUCATION IN CALIFORNIA

Sources of Income

Display 1 on the next page shows the changes in sources of income for California's public and non-public institutions between 1971-72 and 1981-82, the most recent year available from the Higher Education General Information Survey. The display indicates that total revenues for current operations increased during these years from $3.1 to $8.6 billion, or by 176 percent. Inflation, however, as measured by the Higher Education Price Index increased by 115 percent over this period and enrollments by 44 percent, primarily at the Community Colleges.

Display 1 reveals two particularly important trends:

- First, the general impression that public institutions are increasingly dependent on State government appropriations is only marginally true in California, since the total proportion of State and local government support increased modestly from 53.16 percent to 55.80 percent. Of more concern is the increasing dependence of all institutions, public and independent, on State and federal contracts and grants. The ten-year increase in government grants and contracts as a proportion of total income was 4.67 percentage points in public institutions, or a 55.5 percent increase, while that for independent institutions was 5.58 percentage points in private institutions, or a 57.3 percent jump.

- Second, student charges increased steadily at private institutions throughout the decade, both in terms of actual charges and as a proportion of total income. As Display 1 shows, these charges as a proportion of total

DISPLAY 1 Portion of Total Income Represented by Various Income Sources for Public and Non-Public Colleges and Universities in California, 1971-72, 1976-77, and 1981-82 (in Thousands of Dollars)

Source of Income and Years	Category of Institution					
	All Institutions		Public Institutions		Non-Public Institutions	
	Amount	Percent	Amount	Percent	Amount	Percent
Tuition and Fees						
1971-72	$ 390,703	12.51%	$ 168,884	7.48%	$ 221,819	25.66%
1976-77	658,686	11.08	231,566	5.21	427,120	28.49
1981-82	1,236,537	14.34	430,805	6.91	895,733	33.68
State and Local Governments						
1971-72	$1,219,279	39.05%	$1,200,513	53.16%	$ 1,016	0.12%
1976-77	2,392,508	40.25	2,392,595	53.82	4	0.00
1981-82	3,476,879	40.32	3,476,815	55.80	65	0.00
Government Grants and Contracts						
1971-72	$ 274,134	8.78%	$ 190,015	8.41%	$ 84,119	9.73%
1976-77	734,305	12.35	494,046	11.11	240,259	16.02
1981-82	1,127,968	13.08	761,630	12.22	366,338	15.31
Gifts, Grants, and Non-Governmental Contracts						
1971-72	$ 97,750	3.13%	$ 31,244	1.38%	$ 60,452	6.99%
1976-77	159,793	2.69	53,755	1.21	106,038	7.07
1981-82	315,569	3.66	123,530	1.98	192,039	8.03
Endowment Income						
1971-72	$ 41,613	1.33%	$ 10,350	0.46%	$ 31,262	3.62%
1976-77	59,600	1.00	17,417	0.39	42,183	2.81
1981-82	131,413	1.52	37,189	0.60	94,223	3.94
All Other Sources						
1971-72	$1,099,070	35.20%	$ 657,102	29.10%	$ 456,772	53.88%
1976-77	1,939,734	32.63	1,255,951	28.25	683,700	45.60
1981-82	2,334,348	27.07	1,400,435	22.47	933,912	39.04
Total Income						
1971-72	$3,122,549	100.00%	$2,258,108	100.00%	$ 864,440	100.00%
1976-77	5,944,634	100.00	4,445,330	100.00%	1,499,304	100.00
1981-82	8,622,714	100.00	6,230,404	100.00	2,392,310	100.00

Source: Adapted from National Center for Education Statistics, Financial Statistics of Institutions of Higher Education, 1974, 1979, 1984. The Center's Higher Education General Information Survey (HEGIS), from which the data stem, is the most comprehensive source of fiscal data available for institutions of higher education, although its usefulness for state-level policy analysis is diminished by a lack of timeliness and periodic changes in format and definitions.

income declined at public institutions during the early 1970s, but reversed this trend after 1977. Over the ten years, they declined by .57 percentage points in public institutions, or by 7.6 percent, but they increased by 8.02 percentage points in private institutions or by 31.3 percent.

Percent Change in Total Education and General Revenues per Full-Time Equivalent Student and in Faculty Salaries

Unfortunately, the diversity of higher education in America has hampered efforts to report timely, comprehensive and truly comparable fiscal data among states. The difficulty with fiscal information comes not from having too little information. Annually, the Chronicle of Higher Education has published the results of M. M. Chambers' "Grapevine" survey of State General Fund appropriations. D. Kent Halstead and Marilyn McCoy have published extensive studies based on HEGIS fiscal data. The State of Washington's Council for Postsecondary Education publishes a survey of state and local appropriations along with such rankings as support of higher education per thousand dollars of personal income. Each of these efforts has special strengths, combined, however, with considerable weaknesses.

Among the most glaring flaws of studies which compare funding levels among states are:

- Erratic treatment of funds which are used to off-set state appropriations for institutions (such as property tax revenues and student tuition);
- Different treatment of capital expenditures, deferred maintenance, and equipment replacement;
- Different treatment of fringe benefits and future obligations generally; and
- Alternative methods of calculating full-time-equivalent students, a definition which varies considerably among the states.

The efforts by Kent Halstead, Marilyn McCoy, and Melodie Christal in Higher Education Financing in the Fifty States to use HEGIS information and other statistics, carefully discussed with the State Higher Education Finance Officers before release, is gradually becoming the standard reference, if not the last word, in interstate fiscal comparisons. Unfortunately, the publication is not timely (generally, it is three years behind the current year), and improvements each year help overcome the deficiencies of prior volumes. Nevertheless, the extensive effort which is invested in this document makes it the single most comprehensive and comparable information available for the universe of institutions, and its results are summarized in Display 2 for California.

The following paragraphs have been excerpted from the most recent edition of that book (McCoy, Halstead, and Christal, 1984, pp. 130-131, 510-512):

> For California's system of public higher education, fiscal year 1982 was marked by a significant drop in constant-dollar-per-student funding. Only four other states fared worse than California,

DISPLAY 2 Percent Change in Total Education and General Revenues per Full-Time-Equivalent Student and in Faculty Salaries, in Constant Dollars, 1977-78 to 1981-82

Region and Type of Institution	Percent Change
Total Education and General Revenues per Full-Time Equivalent Student	
California	
Public Institutions	- 6.8%
Non-Public Institutions	+ 7.7%
United States	
Public Institutions	- 2.3%
Non-Public Institutions	+ 3.7%
All-Ranks Average Faculty Salaries	
California	
Public Institutions	+38.0%
Non-Public Institutions	+44.0%
United States	
Public Institutions	+36.0%
Non-Public Institutions	+36.0%

Note: Constant dollars were calculated using the Higher Education Price Index deflator. "Education and General Revenues" exclude government grants and contracts.

Source: McCoy, Halstead, and Christal, 1984.

where inflation-adjusted state and local appropriations per student plummeted 12.0 percent. Tuition increases ameliorated these losses to some degree; still, the purchasing power of total revenues (except government grants and contracts) in California's public sector dropped 8.9 percent from 1981 to 1982. All sectors of public institutions suffered these losses except the specialized institutions. Losses in overall purchasing power ranged from 4.7 percent at the research universities (with medical programs) to 10.8 percent at the academic/comprehensive two-year institutions.

The constant-dollar losses in California from 1981 to 1982 left the state's public sector with an overall four-year profile (1978 to 1982) of a 6.8 percent drop in per-student purchasing power. The losses in the two-year sector are most notable, 18.9 percent at the academic/comprehensive two-year institutions and 25.0

percent at the occupational two-year schools. Losses in the university sectors and the comprehensive [four-year] institutions were much less by comparison, ranging from .5 percent to 2.7 percent . . . .

California ranked fifth in the country in its funding of higher education [in terms of per capita support]. On average, each citizen of the state provided $151 to support higher education, a rate 40 percent above average [California, of course, ranks quite low in tuition per capita, so that this high level of State support is not surprising]. Ninety-eight percent of these funds were channeled directly to the public sector, with 95 percent distributed through direct appropriations to public institutions. Three percent was channeled to students in the form of student aid, and 2 percent provided other indirect support to higher education. California was among the 33 states that provided student aid to students attending independent institutions . . . .

California supports 135 public institutions. The State provides 47 percent more funds than average to educate a pool of students 39 percent larger than average. In addition, California's combination of heavy emphasis on two-year education and lesser emphasis on university-level education creates an educational system that on average is less expensive to operate than those in most states. The result is a system of public education that is very well supported by the state, at levels that range between 8 and 189 percent above average per student . . . .

Largely as a result of this substantial state funding (representing 67 percent of all education and general revenues, which are then supplemented by funding from other sources, each of California's public institutional sectors except the two-year institutions operates with total educational and general revenues per student (excluding grants and contracts) that are substantially above average. California's [four-year institutions] are ranked in either first or second place in terms of education and general funding. The academic/comprehensive two-year sector is funded at levels 8 percent below average, while the occupational two-year sector functions with 13 percent less per student than average. At the comprehensive institutions, state . . . appropriations per student are substantially above average, while tuition and private-gift revenues are significantly below. Still, comprehensive institutions in California operate with 6 percent more per student than the national average for similar institutions in other states. Tuition and fee revenues in the two-year sector (at $83 and $91 per student in the academic/comprehensive and occupational sectors) are approximately 85 percent below average and are no doubt a significant factor in the high access rates in this segment.

Above-average revenues translate into above-average expenditure patterns in most cases; public-service activities and other education and general expenditures are the exception. Faculty salaries are 21 percent above average. These pay rates reflect the above-average salary increases in California between 1978 and 1982 . . . .

> California ranked sixteenth in the nation in faculty salary gains. Notably, faculty pay rates [for full-time instructors] in the community colleges are seemingly unaffected by the below-average operating budgets in that sector. In fact, the occupational schools, with a per-student operating budget of 13 percent below average, have salary rates that are 39 percent above average.

In sum, a loss of real support per student occurred for public institutions in 1981-82 -- the first three years of retrenchment. Although data from the Higher Education General Information Survey is not yet available for those later two years, it is quite likely that further erosion in support per student will eventually be evident, especially within California's Community Colleges. It is also likely that the years 1984-85 and 1985-86 will reverse this erosion -- at least for the University of California and the California State University.

The California Higher Education Proportion Index

One of the questions asked most often is where funding for higher education stands as a State priority. Obviously, many approaches to answering this question are possible: some might be based on perceptions, such as interviews with state officials; others on mathematical correlations such as comparisons of funding for higher education with that for other state agencies; and still others on the historical record, such as newspaper accounts of budget decisions.

The California Higher Education Proportion Index does not definitively answer the question of State priorities, but it does shed some light on allocation trends. Specifically, the Index measures the proportion of total State General Fund expenditures (minus capital outlay) and property tax revenues (minus bonded obligations) which have been committed to the three public segments over the years. In addition, the Index shows that proportion of revenues received by each of the three segments, and their change over time. The Index includes State General Fund expenditures (minus capital outlay) because all three segments receive most of their education and general revenues from this source. Property tax revenues are included as part of State-determined funding because of the Community Colleges' reliance on this source, and the fact that Proposition 13 gave the Legislature exclusive responsibility for allocating these revenues, which created a de facto statewide tax. To ignore property taxes in any historical measure of funding for higher education in California would seriously skew the results. Of the various measures available for the "State's commitment" to public higher education, the Higher Education Proportion Index is perhaps the most comprehensive and anlaytical. (The Appendix on pages 101-102 describes its components.)

Although the Index can be used as evidence that higher education is commanding a larger or smaller share of the General Funds and property tax revenues that the State has available for expenditure each year, the "priority" of higher education is a different matter, partly because much of the State's funding is based on workload changes (primarily enrollment shifts) and, in the case of the University and the State University, on decisions about salary increases which are provided to all State employees. Nevertheless, as revealed in the detail of Display 3, the Index does seem to identify

DISPLAY 3 The California Higher Education Proportion Index, 1969-70 to 1984-85

Year	Index	Events Related to the Index
PHASE ONE, 1969-70 TO 1973-74 (Index stable, with a mean of 10.3 percent.)		
1969-70	10.4%	Higher education enjoyed a large budget increase this year and strong enrollment growth.
1970-71	10.2%	No cost-of-living salary increases for faculty at the University or State Colleges. The student/faculty ratio increased considerably at the State Colleges because of a budget cut.
1971-72	10.0%	Again, no cost-of-living salary increases for faculty at the University or State Colleges. The University's budget was cut in several areas.
1972-73	10.4%	The first year of funding after Senate Bill 6 -- the Community College formula that contained a policy of increasing State aid to them. The State University received a large revenue increase.
1973-74	10.3%	State revenues fall during the recession. Spending for the University and State Colleges was held down. Community Colleges' proportion declined.
PHASE TWO, 1974-75 TO 1980-81 (Index increasing, with a mean of 11.7 percent.)		
1974-75	11.1%	A 12.5 percent enrollment increase in the Community Colleges, and a large increase in State support.
1975-76	11.4%	State funding for enrollment increases at the Community Colleges was capped at 5 percent. Property tax increases, however, provided a total revenue increase of 21 percent for them. Four-year institutions received funding for several new programs.
6-77	11.5%	$70 per month across-the-board salary increase granted for all State employees including University and State University faculty. Enrollments stable at the University but declined at the Community Colleges and the State University.
1977-78	11.6%	University enrollments stable, with increases at the Community Colleges and State University. Property taxes permitted an increase of 14 percent in total revenue at the Community Colleges, 10 percent at the State University, and 7.9 percent at the University.
1978-79	11.9%	Proposition 13 passed. The State provided $260 million to Community Colleges to replace lost property tax revenues, but they still lost 5 percent of their total revenues. The University and State University received no salary increases. Nevertheless, higher education increases its proportion of total revenues, indicating that it was not a lower priority.

1979-80	12.1%	All State employees, including University and State University faculty, received a 14.5 percent salary increase. Enrollment growth continued in the Community Colleges.
1980-81	12.3%	All State employees, including University and State University faculty, received a 9.5 percent salary increase. A large enrollment increase in the Community Colleges, especially among non-credit students. Higher Education Proportion Index reaches 13-year high.

PHASE THREE, 1981-82 TO 1983-84 (Index declining, with a mean of 11.7 percent.)

1981-82	12.1%	State's surplus exhausted. First year of retrenchment. Student fees increased at the University and State University, both at the beginning and mid-year, to offset State cuts. Community College enrollments reached all-time high.
1982-83	11.8%	Recession reduced State's revenues considerably. Community Colleges received no cost-of-living adjustment and lost $30 million in selective course reductions, and their enrollments declined by 6 percent. No salary increases for University and State University faculty. Student fees increased at the University and State University at the beginning and mid-year, to offset State cuts.
1983-84	11.2%	Governor vetoed $230 million from the Community College budget in order to impose student fees but restored $100 million in January 1984. Five percent salary increase provided in mid-year for University and State University faculty. Tight budgets throughout higher education. Community College enrollments continued to decline. Student fees raised again at the University and State University, to offset State cuts.

PHASE FOUR, 1984-85 TO 19?? (Index increasing.)

1984-85	11.9%	Major infusions of State funds into faculty salaries and restoration of past cuts in the University and State University. Student fees reduced at the University and State University but imposed for the first time by the State at the Community Colleges. Enrollments continued to decline at the Community Colleges but increased at the University.

Note: The California Higher Education Proportion Index shows State General Fund expenditures and property tax revenues used for the support of current operations in all three public segments of higher education as a proportion of total State General Fund expenditures and property tax revenue as defined in the statement of methodology in the Appendix.

Source: California Postsecondary Education staff calculations.

those periods in State finance when enrollments were growing or State priorities afforded a larger share of the total allocation to higher education, or--alternately--during retrenchment when substantial cuts were imposed on the institutions.

Display 3 presents the Higher Education Proportion Index in aggregate form. It shows that State support for the three public segments seems to have completed three distinct phases since the late 1960s, in terms of the proportion of State General Fund expenditures and property tax revenues allocated to them: (1) 1969-70 to 1973-74 -- a stable proportion; (2) 1974-75 to 1980-81 -- an increasing proportion; and (3) 1981-82 to 1983-84 -- a rapidly declining proportion, involving budget cuts to all public institutions and major reductions to Community Colleges.

The totals of Display 3, of course, can be broken down by its components (the University of California, the California State University, and the California Community Colleges), as Table 31 shows. This detail reveals contrary trends among the segments. For example, Table 31 indicates that, despite some setbacks in the early 1980s, the University of California has steadily increased its proportion of State-determined resources since 1971 (from 2.9 percent, the University's low, up to 4.2 percent in 1984-85). The State University has fluctuated around an "equilibrium" level of 3.2 percent since 1977-78, although its recent trend is clearly upward from a 3.0 percent low in 1982-83. On the other hand, the Community Colleges have declined since their high of 5.3 percent in 1977-78, the year before Proposition 13,

TABLE 31 State General Fund Expenditures and Property Tax Revenues Used for the Support of Current Operations of the Three Public Segments, in Thousands of Dollars and Their Resulting Proportion Index, 1969-70 to 1984-85

Year	Total State General Fund Expenditures and Property Tax Revenues	University of California*		The California State University*		California Community Colleges**	
		Amount	Index	Amount	Index	Amount	Index
1969-70	$ 9,026,000	$ 329,334	(3.6%)	$234,963	(3.1%)	$ 337,225	(3.7%)
1970-71	10,526,000	337,079	(3.2%)	305,132	(2.8%)	444,887	(4.2%)
1971-72	11,265,000	335,578	(2.9%)	316,250	(2.8%)	485,710	(4.3%)
1972-73	12,342,000	384,705	(3.1%)	373,181	(3.0%)	531,330	(4.3%)
1973-74	13,992,000	445,910	(3.2%)	428,919	(3.0%)	579,148	(4.1%)
1974-75	15,704,000	514,556	(3.2%)	481,546	(3.0%)	772,958	(4.9%)
1975-76	17,776,000	585,461	(3.2%)	537,990	(3.0%)	940,544	(5.2%)
1976-77	19,793,000	683,742	(3.4%)	604,833	(3.0%)	1,023,660	(5.1%)
1977-78	21,906,000	737,498	(3.3%)	666,072	(3.0%)	1,170,148	(5.3%)
1978-79	21,045,000	767,050	(3.6%)	682,983	(3.2%)	1,093,295	(5.1%)
1979-80	24,050,000	901,951	(3.7%)	814,453	(3.3%)	1,238,155	(5.1%)
1980-81	27,413,000	1,074,584	(3.9%)	952,052	(3.4%)	1,386,733	(5.0%)
1981-82	28,867,000	1,097,293	(3.8%)	955,683	(3.3%)	1,454,532	(5.0%)
1982-83	29,926,000	1,125,469	(3.8%)	907,338	(3.0%)	1,447,787	(4.8%)
1983-84	31,504,000	1,110,012	(3.5%)	949,984	(3.0%)	1,466,674	(4.7%)
1984-85	35,090,000	1,457,147	(4.2%)	1,151,552	(3.3%)	1,561,496	(4.4%)

Note: "Total General Fund Expenditures and Property Tax Revenues" are defined in the text.

*General Fund Expenditures and Capital Outlay Funds for Public Higher Education in the Support Budget.

**All General Fund Expenditures and Property Tax Revenues, including State Operations, as defined in the text.

Source: California Postsecondary Education Commission staff calculations.

to a ten-year low of 4.4 percent in 1984-85. Community College funding during the early years (1969-70 to 1977-78), however, reveals a steady increase in this segment's proportion of funding, propelled largely by enrollment growth and the State's policy to shift a higher percentage of support to General Funds.

MICRO INDEXES FOR HIGHER EDUCATION IN CALIFORNIA

Displays 4 through 9 on the following pages presents data for the six "micro indexes" that by and large compare trends within the three segments.

- Display 4, the State Support Index, shows how the State's fiscal commitment to the three segments changes relative to the total expenditures of each segment. As it indicates, the State-funded portion of the total expenditures of the University and State University fell considerably between 1974-75 and 1983-84 but then increased at an unprecedented rate in 1984-85. In contrast, the State-funded portion of the Community Colleges' total income (including property tax revenues) increased between 1974-75 and 1982-83 -- from 77.27 percent to 85.61 percent.

- Display 5, the Instructional Support Index, shows how expenditures for instruction have changed as a proportion of total expenditures within each segment. It indicates that these instructional expenditures in the University and State University have declined during the past decade but have remained virtually the same proportion in the Community Colleges.

- Display 6, the Institutional Support Services Index, shows how expenditures for general administration services have changed as a proportion of total expenditures. Although consistent data for the decade is unavailable from the Community Colleges, it indicates that at both the University and State University administrative costs have declined slightly as a percentage of the total.

- Display 7, the Student Charges Index, shows how general-purpose student charges for residents and nonresidents have changed over the years, when compared to total expenditures within each segment. It indicates that these charges declined proportionally in the University and State University until 1978-79 but then increased rapidly between 1980-81 and 1983-84, after which appropriations for 1984-85 reversed this trend.

- Display 8, the Resident Student Charges Index, shows how statewide fees charged by each of the public segments have changed over the years as a percentage of State General Funds. It indicates that fees increased sharply between 1980-81 and 1983-84 at the University of California, but returned in 1984-85 to earlier levels. For the State University, sharp increases occurred during the same years, but the 1984-85 level remained considerably higher than before.

- Finally, Display 9, the State-Funded Student Financial Aid Index, shows how direct State support for student aid has changed, compared to State support for the three public segments as a whole. It indicates that this aid grew before 1979-80 but remained around an "equilibrium" point through 1983-84.

DISPLAY 4 The State Support Index, 1974-75 to 1984-85

	Segment		
Year	University of California	The California State University	California Community Colleges
1974-75	31.24%	69.82%	77.27%
1975-76	31.22	69.39	82.66
1976-77	31.18	68.76	81.28
1977-78	29.97	70.79	82.81
1978-79	29.90	67.83	82.82
1979-80	28.10	68.90	82.70
1980-81	29.01	68.35	82.38
1981-82	27.04	66.69	83.99
1982-83	26.26	61.65	85.61
1983-84	25.43	61.61	N/A
1984-85	27.06	66.07	N/A
Percentage Point Change	- 4.18%	- 3.75%	+ 8.34%
Percent Change	-13.38%	- 5.37%	+10.79%

Notes: The State Support Index identifies State general purpose funds for each of the three public segments as a percentage of their total expenditures.

The years 1980-81 through 1983-84 include Capital Outlay Funds for Public Higher Education (COFPHE) for the University and the State University, which were expended for deferred maintenance and equipment replacement, thus relieving COFPHE funds for deferred maintenance in 1982-83 and 1983-84.

For all segments, "State general purpose funds" mean State General Funds expended for some Educational or General purpose. For the Community Colleges, property tax revenues are included (but not those raised specifically for capital outlay).

For the Community Colleges, State General Funds for the districts and for statewide programs are included, as well as property tax revenues as defined in the Appendix.

N/A = not available.

Source: California Postsecondary Education Commission staff calculations from Governor's Budgets and the State Controller's Annual Report on the Financial Transactions of School Districts for the relevant years.

DISPLAY 5 *The Instructional Support Index, 1974-75 to 1984-85*

	Segment				
	University of California			California Community Colleges	
Year	Instructional Expenditures/ Total Expenditures	Instructional Expenditures/ Support for Current Operations	The California State University	Instructional Salaries/ Total Expenses	Instructional Salaries/ Current Expense of Education
1974-75	17.43%	36.61%	49.51%	N/A	N/A
1975-76	17.28	35.87	48.69	45.26%	53.91%
1976-77	16.44	33.96	46.87	45.43	52.59
1977-78	16.06	33.96	46.06	44.17	52.53
1978-79	15.21	33.21	45.49	45.56	53.02
1979-80	15.42	33.61	45.09	45.28	53.00
1980-81	15.44	32.87	44.45	45.63	52.60
1981-82	14.89	20.22	45.46	45.83	52.55
1982-83	14.42	19.91	43.83	46.37	52.98
1983-84	10.36	19.59	44.89	N/A	N/A
1984-85	11.84	21.73	46.93	N/A	N/A
Percentage Point Change	- 5.59%	-14.88%	- 2.58%	+ 1.11%	- 0.93%
Percent Change	-32.07%	-40.64%	- 5.21%	+ 2.45%	- 1.73%

Notes: The Instructional Support Index identifies instructional expenditures from all sources, including "General Purpose" and "Restricted" Funds, as a percentage of total support expenditures.

For the University, the first column shows instructional support as a proportion of all expenditures, including extramurally funded operations. Since this includes large amounts of funds for contracted research (such as for the energy laboratories), the second column shows instructional support as a proportion of the University's budget for current operations -- a measure that excludes extramural funding. This is a more accurate measure of instructional support as a proportion of all the University's educational and general activities. Therefore, it is the more meaningful proportion, although it does not accord strictly with the Index's definition.

For the State University, only one column is shown since the amounts for contracted research do not appreciably affect the results of the calculations.

For the University and the State University, instructional expenditures are those shown under the "Program" display in each year's Governor's Budget. Because budget reporting for the Community Colleges is so different than for the four-year segments, this straight-forward measure is not available. As a result, two surrogates for "instructional support" were chosen for the Community Colleges: (1) the salaries of classroom instructors divided by total expenditures, and (2) the salaries of classroom instructors divided by the current expense of education as defined in Education Code Section 84362(b). These data are found in the State Controller's Annual Report on the Financial Transactions of School Districts.

N/A = not available.

Source: California Postsecondary Education Commission staff calculations.

DISPLAY 6 The Institutional Support Services Index, 1974-75 to 1984-85

	Segment			
	University of California			
Year	Support Services/ Total Expenditure	Support Services/ Support for Current Operations	The California State University	California Community Colleges
1974-75	3.54%	7.47%	12.32%	See notes.
1975-76	3.53	7.32	11.73	
1976-77	3.36	7.01	12.26	
1977-78	3.31	6.88	11.14	
1978-79	3.27	6.99	10.49	
1979-80	3.26	7.45	11.01	
1980-81	3.40	7.47	10.83	
1981-82	3.05	6.86	10.86	
1982-83	2.90	6.47	11.13	
1983-84	3.45	6.52	12.11	
1984-85	3.50	6.42	11.25	
Percentage Point Change	-0.04%	- 1.05%	- 1.07%	
Percent Decline	1.13%	14.06%	8.69%	

Notes: The Institutional Support Services Index identifies expenditures for general administrative services as a proportion of total expenditures. For the University of California, it includes administrative expenditures from all sources -- "General Purpose" and "Restricted" -- as a percentage of total expenditures. At the University, "Institutional Support Services" costs cover executive management, fiscal operations, general administrative services, logistical services, and community relations. For the State University, the term refers to all these categories plus a few others, including physical plan operations. Although the program sub-elements for these services have differed slightly between these segments over the years, the differences are minimal except for inclusion of plant operation and maintenance in the State University's "institutional support" budget, as displayed in each year's Governor's Budget. Therefore, in order to achieve comparability, this sub-element was removed from the State University's "institutional support" figures before the Index was calculated.

For the University, the first column shows institutional support services as a percentage of all expenditures, including extramurally funded operations (contracted research). A second column was added which shows these services as a proportion of the University's budget for current operations -- a measure that excludes extramural funding. This is a more accurate measure of institutional support services as a proportion of all the University's education and general activities.

For the California State University, only one line is shown, since the amounts for contracted research do not appreciably affect the results of the calculations.

For the California Community Colleges, comparability of data from year to year cannot yet be assured.

Source: California Postsecondary Education staff calculations from the Governor's Budgets for the relevant years.

DISPLAY 7 The Student Charges Index, 1974-75 to 1984-85

	Segment		
Year	University of California	The California State University	California Community Colleges
1974-75	7.29%	6.48%	See notes.
1975-76	7.48	5.95	
1976-77	6.98	5.93	
1977-78	6.45	5.71	
1978-79	6.92	5.73	
1979-80	6.28	5.16	
1980-81	6.14	5.22	
1981-82	6.91	6.50	
1982-83	7.88	10.48	
1983-84	8.61	13.50	
1984-85	7.29	11.39	
Percentage Point Change	0.00%	+ 4.91%	
Percent Change	0.00%	+75.77%	

Notes: The Student Charges Index identifies general purpose student charges and fees as a percentage of total expenditures.

For the University of California, student charges include the Registration and Education fees, summer session fees, and non-resident tuition. "Total expenditures" are defined as "budgeted programs," excluding extramurally funded operations such as the energy laboratories and contract research.

For the California State University, student charges include the student services fee, the student services fee (off campus), the State University fee, summer session fees, and non-resident tuition.

For the California Community Colleges, statewide fees were instituted only in 1984-85.

Sources: California Postsecondary Education Commission staff calculations from the Governor's Budgets for relevant years and the California State University's support budgets for relevant years.

DISPLAY 8 The Resident Student Charges Index, 1974-75 to 1984-85

	Segment		
Year	University of California	The California State University	California Community Colleges Statewide Mandated Fee
1974-75	10.29%	6.60%	--
1975-76	10.88	7.49	--
1976-77	9.99	7.07	--
1977-78	9.11	6.53	--
1978-79	10.42	6.31	--
1979-80	9.33	5.28	--
1980-81	9.05	5.14	--
1981-82	10.44	6.65	--
1982-83	12.00	13.94	--
1983-84	15.22	14.23	--
1984-85	11.25	11.60	5.68%

Notes: The Resident Student Charges Index indentifies certain statewide fees charged by the University of California, the California State University, and the California Community Colleges as a percentage of State General Funds.

For the University of California, these fees are the Education Fee and the Registration Fee.

For the California State University, these fees include the Student Services Fee, the 1981-82 Emergency Fee, and the State University Fee.

For the California Community Colleges, these fees are the mandated charge of $50 per semester for full-time students imposed in 1984-85.

Sources: California Postsecondary Education Commission staff calculations from the Governor's Budgets for relevant years and the California State University's support budgets for relevant years.

DISPLAY 9 The State-Funded Student Financial Aid Index, 1974-75 to 1984-85

Year	Index
1974-75	2.40%
1975-76	2.60
1976-77	2.58
1977-78	2.63
1978-79	2.83
1979-80	2.49
1980-81	2.53
1981-82	2.37
1982-83	2.38
1983-84	2.38
1984-85	2.25
Percentage Point Change	-0.15%
Percent Change	-6.25%

Note: The State-Funded Student Financial Aid Index identifies State-funded student financial aid as a percentage of State General Funds and property tax revenues received by the three public segments of higher education. "State-funded student financial aid" is defined as State General Funds committed to the California Student Aid Commission, plus any other State funds appropriated to the institutions directly for financial aid, such as the support provided to the California State University starting in 1982-83 to counter the effect of large increases in student fees.

Source: California Postsecondary Education Commission staff calculations from the Governor's Budgets for relevant years.

EIGHT

THE FUTURE OF CALIFORNIA STATE FINANCING OF POSTSECONDARY EDUCATION

Without doubt, California enjoys a premier array of postsecondary institutions. Its higher education system is distinguished in terms of its high participation rate (the number of students as a proportion of total population), its acknowledged quality (the reputation of institutions for instruction, research, and public service), and its extensive diversity (the range of institutional programs and courses). Achieving these characteristics has been expensive, but the people of California -- through their elected representatives in terms of public institutions, and on their own behalf through tuition payments to independent colleges and universities -- have generally been willing to provide the necessary resources.

Although abundance and diversity have traditionally characterized postsecondary finance in California, the late 1970s and early 1980s challenged both of these characteristics. Considerable evidence exists that in the decade from 1968 to 1977, "real" resources increased for all public institutions and for most independent ones. Public higher education commanded an increasingly large share of State General Funds and property tax revenues, and the State ranked among the highest in per capita support for higher education (Jamison, 1981). Although most independent institutions did not share as fully in the growth of resources as did their public counterparts, their financial condition appears to have been sound during this earlier period. As of 1975, the majority of California's independent colleges and universities seemed to be in relatively stable financial health, with revenues increasing faster than expenditures (California Postsecondary Education Commission, 1978a, pp. 2-3).

Certainly the year of Proposition 13 -- 1978 -- represents a dramatic pause in this growth of resources. Although higher education's proportion of State support did not fall, overall State and local resources provided to California's public institutions declined precipitously compared to those elsewhere -- from 35 percent above the national average in 1977-78 to 3.5 percent above in 1978-79, in terms of expenditures for higher education per $1,000 of personal income (Jamison, 1981).

The years between 1981 and 1984 then saw major retrenchment imposed on most institutions through tight budgets, rapidly escalating student charges in both the public and private sector, diminished student financial assistance for students at independent institutions, restrained salary increases, and minimal outlays for buildings and equipment. As a measure of this declining support, the proportion of State resources provided to the three public segments between 1981-82 and 1983-84 fell sharply and steadily.

The year 1984-85 signaled a dramatic reversal of this decline, both for publicly supported four-year institutions, and for the California Student Aid Commission, which is the State's source of financial assistance to students at independent institutions. Further, the Governor's Budget for

1985-86 would continue these positive trends for the four-year institutions and the Student Aid Commission. To date, however, the Community Colleges have not shared in this resurgence, partly because their enrollments have declined by 24 percent since 1981, and partly because the State's assumption of fiscal responsibility for them after Proposition 13 has led to an increasing, although for the most part unrealized as yet, demand for more statewide accountability and a clearer definition of their role.

This current resurgence in the State's fiscal support for most of higher education represents a transition from the period of extensive retrenchment. The new period will likely involve some "equilibrium" support level for institutions but few additional resources. More funds are likely to flow into specially-targeted areas, such as capital needs (especially equipment replacement), high technology research, and enhanced vocational education. Substantial amounts for enrollment increases are unlikely, however: The University of California is reaching its maximum capacity despite a growing demand for undergraduate spaces; the State University will be affected by the declining numbers of 18- to 24-year olds; and the Community Colleges are not likely to receive State support to regain their lost enrollments.

As this new era begins, three important issues for the future of California higher education have particular implications for financing postsecondary education in the State: (1) the current lack of attractiveness of teaching in higher education as a profession, (2) the massive backlog of capital and equipment needs, and (3) the increasing costs to students of financing their education.

LACK OF ATTRACTIVENESS OF COLLEGE TEACHING AS A PROFESSION

During the past 15 years, the purchasing power of faculty salaries has declined by 25 percent (American Association of University Professors, 1984, p. 3). Although this is unfortunate for faculty presently employed, its implications for the future of higher education are especially ominous. This decline, exascerbated by the fact that salaries in most competing professions have kept pace with inflation, obviously makes it difficult to convince the best students to pursue long-years of education so they can serve in the professorate. The fact that only two-tenths of one percent of today's freshmen plan on careers as professors -- a decline of 89 percent since 1965 -- suggests the extent of this problem. Although the State has a policy to pay salaries in its four-year institutions that are competitive with those in comparable institutions throughout the country, this policy alone will not insure the attractiveness of teaching in higher education as an alternative to other professions.

THE BACKLOG OF CAPITAL AND EQUIPMENT NEEDS

Capital outlay and equipment replacement have been consistently underfunded in higher education over the past decade. Two recent developments indicate a new and positive response to this problem.

- A large infusion of resources into the University of California for capital outlay, primarily from High Technology Bond Funds and non-State sources; and

- Recognition by the State of additional resources for deferred maintenance and equipment replacement in all public segments.

To meet this large backlog, the State is gradually being forced to change its "pay-as-you-go" policy in the area of capital outlay and, along with most other states, is adopting various forms of "creative financing" that involves new relationships between institutions of higher education and those who provide funds for construction or renovation. Capital outlay and maintenance are two of the most critical challenges facing educational institutions today. Successfully responding to these challenges requires long-range planning rather than "crash" programs.

STUDENT COSTS OF EDUCATION

A steady increase in tuition at independent institutions has occurred during the past decade, and fees rose rapidly in the public sector during recent years. Before 1984-85, these increases were not accompanied by sufficient funds in State student financial aid to offset the growing need for "self-help," which meant larger contributions from parents, more jobs for students, and a staggering increase in student loans. Further, the initial results of the Commission's study of the financial condition of independent institutions indicate that this trend has had serious repercussions in this sector. The continuing decline in federal student aid means that, even with large increases in State student financial aid along with policies to hold down student charges at public institutions, a larger financial sacrifice will be required from students and their parents to finance college attendance.

CONCLUSION

In sum, the State of California has placed a high priority on its postsecondary sector by fiscally supporting extensive access, high quality, and diversity of educational opportunity. Specifically, this priority has been reflected in the State's high level of institutional finance, its policy of distributing campuses and off-campus centers throughout the State, its extensive program of student financial aid to students attending independent institutions, and its policy of low student charges.

During years of growth in its revenues, the State has typically enhanced the financing of higher education, both in terms of institutional revenues and student financial aid. However, when recessions have forced State revenues down, higher education has suffered budget reductions larger than the average for publicly supported services, and this pattern will likely be repeated in the future. To a considerable extent, these disproportionate cuts come because the State "saves" money during retrenchment chiefly by holding down salaries -- by far the largest single item of expenditure in higher education. Further, the relatively low level of student charges in the public sector means that increases in fees are a tempting source to replace State funds. Finally, capital outlay and maintenance has been a prime target for reductions, and higher education has the State's largest investment in capital facilities, excluding highways. Thus, despite the current upward trend in State support for postsecondary education, hard times in the future will more than likely result in another considerable downturn in this support.

APPENDIX

Calculating the California Higher Education Proportion Index

As noted in Chapter Seven, the California Higher Education Proportion Index measures the proportion of State General Fund expenditures and property tax revenues that have been committed to the three public segments of higher education in California -- the University of California, the California State University, and the California Community Colleges. In addition, the Index shows that proportion represented by each of the three segments, and their change over time. Of the various measures available for comparing the "State's commitment" to public higher education to all other State services, this index is perhaps the most analytical and comprehensive.

The Index includes State General Fund expenditures because all three segments receive most of their Education and General revenues from this source. Property tax revenues are included as part of State funding because of the Community Colleges' reliance on this source. To ignore property taxes in a historical measure of higher education funding in California would seriously skew the results.

Although every effort was made to keep the calculation of this Index simple, the complexities of State finance over time require some adjustments. For example, in order to avoid double counting certain subventions for property taxes and the inclusion of capital outlay, certain adjustments to aggregate State General fund expenditures need to be made.

The Index is calculated through the following procedures:

1. Total General Fund Expenditures (adjusted) and Property Tax Revenues

    1.1 Adjusted General Fund Expenditures = General Fund Expenditures shown in Schedule 3, Governor's Budget (less General Fund capital outlay expenditures).

    1.2 Property Tax Revenues = Property Tax Revenues as reported by the Office of the Legislative Analyst and the Board of Equalization (excluding bonded indebtedness, business inventory tax relief, and homeowners' property tax relief).

2. General Fund Expenditures and Property Tax Revenues for the Public Segments

    2.1 Actual State General Fund Expenditures by the University of California. (Appropriated funds are used for the current year. Sources include the Governor's Budget and University documents.)

    2.2 Actual State General Fund Expenditures by the California State University. (Appropriated funds for the current year. Sources include the Governor's Budget and University documents).

2.3 State and property tax support for the Community Colleges

State Support

General Apportionments
Business Inventory Tax Relief
Homeowner's Property Tax Relief
Other Tax Relief Subventions
Handicapped Allowance and EOPS
Net State General Funds for
  the Board of Governors and
  the Chancellor's Office

plus Local Revenues

District, City, and County Taxes

minus Capital Outlay.

These amounts are available for past years in either the annual Governor's Budget or in the State Controller's Annual Report of the Financial Transactions of School Districts. Current- and prior-year data are estimates based on the Governor's Budget, the annual Budget Act, and information from the staff of the Chancellor's Office of the California Community Colleges.

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CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

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